

AD-A048 933

AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO F/G 20/1
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. VOLUME 89. T-2C AIRC--ETC(U)

JUN 77 R G POWELL

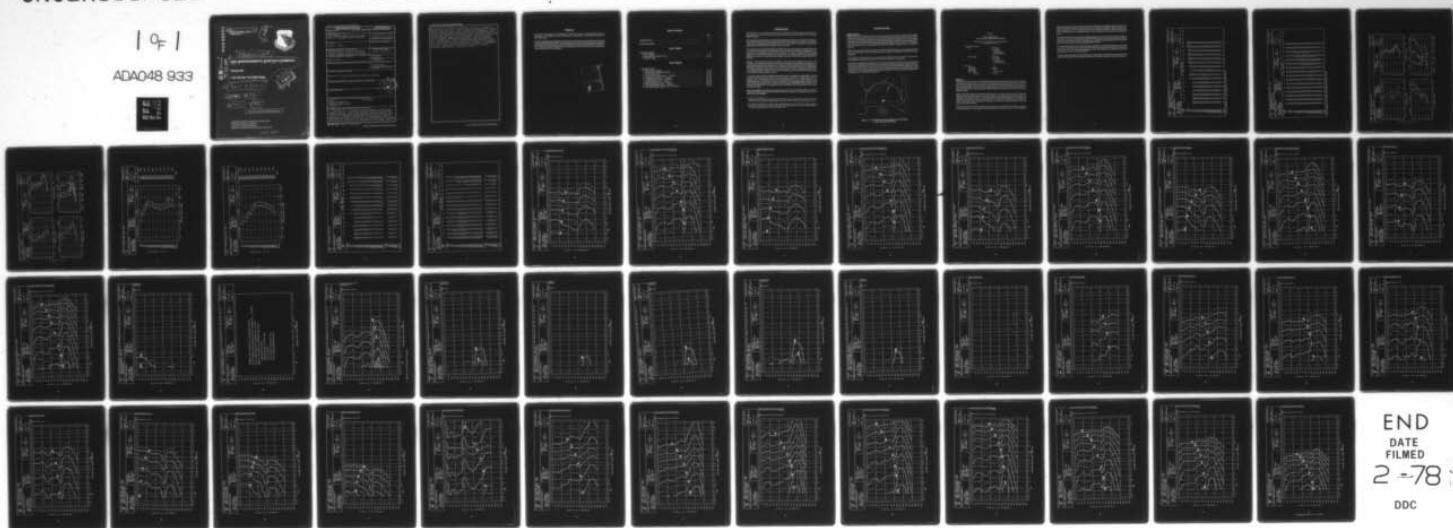
UNCLASSIFIED

AMRL-TR-75-50-VOL-89

NL

1 of 1

ADA048 933



END
DATE
FILED
2-78
DDC

AD A 048933

AD No.
DRAFT FILE COPY

(14) AMRL-TR-75-50-VOL-89
Volume 89

(15)
NW



(9) Technical rept.,

USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK.

Volume 89.

T-2C Aircraft, Far-Field Noise.

(10) Robert G. Powell



(11) JUN 1977

(12) 54 P.

(16) 7231

(17) 04

Approved for public release; distribution unlimited.

AEROSPACE MEDICAL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
AIR FORCE SYSTEMS COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433

009 850

mt

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER AMRL-TR-75-50, Vol. 89	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK: T-2C Aircraft, Far-Field Noise	5. TYPE OF REPORT & PERIOD COVERED Volume 89 of a series	
7. AUTHOR(s) Robert G. Powell	6. PERFORMING ORG. REPORT NUMBER	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Aerospace Medical Research Laboratory Aerospace Medical Division, Air Force Systems Command, Wright-Patterson AFB, OH	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 62202F 7231-04-33	
11. CONTROLLING OFFICE NAME AND ADDRESS Same as above	12. REPORT DATE June 1977	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	13. NUMBER OF PAGES 54	
	15. SECURITY CLASS. (of this report) Unclassified	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Noise T-2C Aircraft Noise Environments Bioenvironmental Noise Aircraft		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The USN T-2C is a trainer aircraft powered by two J85-GE-4A turbojet engines. This report provides far-field measured and extrapolated data defining both physical and psychoacoustic measures of the bioacoustic environments produced by this aircraft operating on a ground runup pad for two engine/power conditions. Far-field data measured at 16 locations are normalized to standard meteorological conditions and extrapolated from 75-8000 meters to		

DD FORM 1473 EDITION OF 1 NOV 65 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

→ derive sets of equal-value contours as a function of angle and distance from the source. These contours are measures of: overall and band sound pressure levels, C-weighted and A-weighted sound levels, preferred speech interference level, perceived noise level, and limiting times for total daily exposure of personnel with and without standard Air Force ear protectors. Refer to Volume 1 of this handbook, "USAF Bioenvironmental Noise Data Handbook, Vol 1: Organization, Content and Application", AMRL-TR-75-50(1) 1975, for discussion of the objective and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc.

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

PREFACE

This report was prepared by the Biodynamic Environment Branch, Aerospace Medical Research Laboratory, under Project/Task 723104, Measurement and Prediction of Noise Environments of Air Force Operations.

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report Capt Nick Farinacci, Mr. Harald Hille, and Mr. Jerry Speakman for their assistance in acquiring the raw data, Mr. Keith Kettler, Mr. Henry Mohlman and Mr. David Eilerman of the University of Dayton for assistance in the mechanics of data processing, and Mrs. Peggy Massie and Mr. Mike Patterson for assistance in typing and preparation of the graphics.

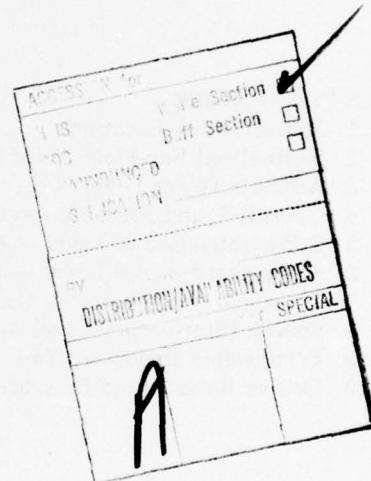


Table of Contents

	<i>Page</i>
INTRODUCTION	3
FAR-FIELD NOISE	4

List of Tables

FAR-FIELD NOISE	
1. Test Conditions	5
2. Measured Sound Pressure Level	7—8
3. Directivity Index	13—14

List of Figures

FAR-FIELD NOISE	
1. Measurement Locations	4
2. Normalized Far-Field Noise Levels	9—10
3. Acoustic Power Level	11—12
4. Overall Sound Pressure Level — Contours	15—16
5. C-Weighted Sound Level — Contours	17—18
6. A-Weighted Sound Level — Contours	19—20
7. Perceived Noise Level — Contours	21—22
8. Speech Interference Level — Contours	23—24
9. Permissible Exposure Time — Contours	25—32
10. Octave Band Sound Pressure Level — Contours	33—50

INTRODUCTION

The USN T-2C is a trainer aircraft powered by two J85-GE-4A turbojet engines. The aircraft was manufactured by the Columbus Division of Rockwell International and the engines by the General Electric Company.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the T-2C aircraft.

This volume is one of a series published by the AMRL under the same report number (AMRL-TR-75-50) as a multi-volume handbook that quantifies the noise environments produced at flight/ground crew locations and in surrounding communities by operations of military aircraft and ground support equipment. The far-field, community-type, noise data in the handbook describe the noise produced during *ground operations* of aircraft, ground support equipment, and other ground-based equipment or facilities.

Volume 1 of this handbook discusses the objectives and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Volume 2 provides a method and data for adjusting the handbook's far-field noise data, which are for standard meteorological conditions (15 C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure), to derive comparable data for other meteorological conditions. Refer to Volumes 1 and 2 (references 1 and 2) for such information because it is not repeated in other handbook volumes.

A cumulative index lists those aerospace systems contained in the handbook, and identifies the specific volumes containing each type of environmental noise data available (i.e., inflight/flight crew and passenger noise, near-field/ground crew noise, far-field/community noise). Volume numbers are assigned sequentially as individual volumes are published. This index is periodically updated as individual volumes are published and is available upon request from AMRL/BBE, Wright-Patterson AFB, OH 45433. Organizations on the distribution list for the handbook will automatically receive a copy of each updated index.

Direct any questions concerning the technical data in this report and other handbook volumes to: AMRL/BBE, Wright-Patterson AFB, OH 45433; AUTOVAN 78-53675 or 78-53664; Commercial (513) 255-3675 or (513) 255-3664.

-
1. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 1: Organization, Content and Application*, AMRL-TR-75-50 (1) Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.
 2. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 2: Procedure to Evaluate Effects of Non-standard Meteorological Conditions on Far-Field Noise*, AMRL-TR-75-50 (2), Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired the far-field data during a 1-hour test period, thus keeping similar meteorological conditions throughout the test. Figure 1 shows the ground runup area (taxiway), ground cover, aircraft orientation and microphone measurement sites on the semicircle. The center of the 75 meter radius semicircle used in surveying the J85-GE-4A engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both engines, exhaust-nozzle exits. The ground runup area did not have a blast deflector; therefore, the engines' exhausts were in a "free-flow" condition.

Table 1 provides cockpit readouts of engine characteristics (RPM, fuel flow, etc.) for each power setting used in the far-field tests. Also listed in this table are the surface meteorological conditions during data acquisition.

All microphone measurement sites are in the acoustic far-field of the source where the sound wavefronts spherically diverge and the noise source may be regarded as a point source.

A portable microphone/tape-recorder system was used to sequentially record the noise at each far-field location. The microphone was attached to a hand held pole, pointed at the source (0° angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of 5-10 seconds during data acquisition at each microphone location. These samples were then time-integrated to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduce anomalies frequently present in data acquired by a fixed height microphone.

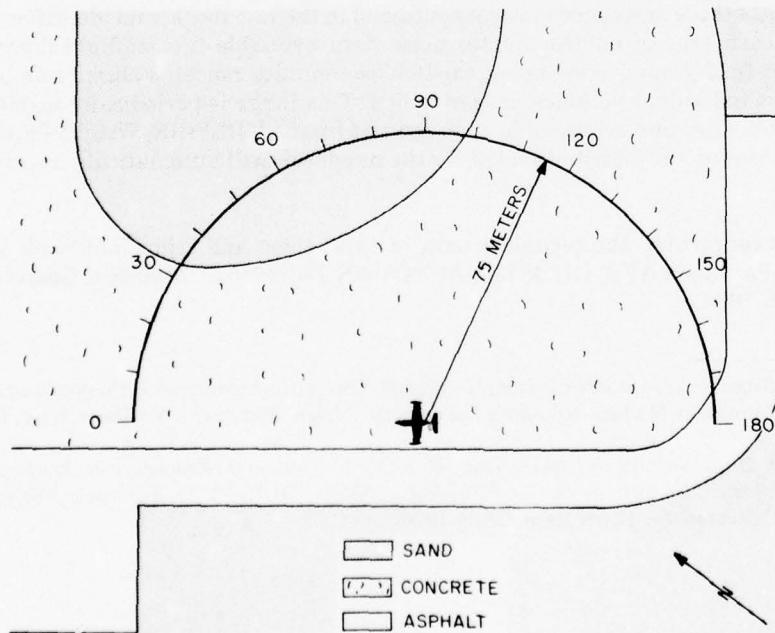


Figure 1. Far-Field Measurement Locations on the Taxiway
at ALF, San Clemente Island

TABLE 1

**TEST CONDITIONS
FOR FAR-FIELD NOISE MEASUREMENTS**

T-2C Aircraft, Ground Runups, ALF, San Clemente Island
Tail #158888, 19 May 1973

<i>Aircraft Engine Operation</i>	
Idle	Both Engines 50 % RPM 31.5 Inches Hg, Engine Pressure 640 LBS/HR, Fuel Flow
Military Power	Both Engines 100 % RPM 65.6 Inches Hg, Engine Pressure 2675 LBS/HR, Fuel Flow
<i>Meteorology</i>	
Temperature	15.6 C
Bar Pressure	0.762 M Hg
Rel Humidity	87 %
Wind — Speed	3.1 M/Sec (6 KTS)
— Direction	240 Deg

RESULTS

Table 2 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15 C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 2 which provides a compact summary of the far-field noise characteristics of the T-2C aircraft in a standard format.

Figure 3 and Table 3 present two basic acoustic measures, the acoustic power level and the directivity index, respectively. The acoustic power level describes the power radiated by the source as a function of frequency. The directivity index is a standard acoustical engineering measure that describes the geometric way in which the source radiates this power as a function of both frequency and angle from source. These basic source measures are primarily of interest for acoustical engineers and noise generation/control specialists.

Estimates of the noise levels for intermediate power settings (e.g., 85% RPM) and/or different number of engines operating (e.g., single engine) can be determined as explained in Volume 1 of this handbook.

Figures 4 through 10 are sets of equal noise contours describing seven different measures of noise as a function of angle and distance from the source for standard day meteorology. They are respectively, overall sound pressure level, C-weighted sound level, A-weighted sound level, perceived noise level, speech interference level, permissible exposure times for personnel and octave band sound pressure levels.

Data excessively influenced by spurious background/electronic noise were eliminated from all figures and tables. No data are presented at the 160/170/180 locations for either power setting because of turbulent air flow behind the aircraft. Typically, the A-weighted levels for these angles are 10 to 20 dBA below the level measured at the preceding microphone location.

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating. Data eliminated because they were near the background/electronic noise were generally not significant because the levels were so low (e.g., Table 2, idle power).

Volume 2 of the handbook describes the influence of meteorology on far-field noise environments, and provides, if required, the factors necessary to adjust the handbook's standard meteorological day data.

TABLE: 1/3 OCTAVE BAND 2 DISTANCE = 75 METERS		MEASURED SOUND PRESSURE LEVEL (DB)												IDENTIFICATION			
		OPERATION												TEST 75-002-043			
NOISE SOURCE/SUBJECT:		T-2C AIRCRAFT			J85-GE-4A ENGINE			FAR FIELD NOISE			METEOROLOGY			OMEGA 1.4			
FREQ (HZ)		0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
	25																
	31.5																
	40																
	50																
	63																
	80	62<	63<	64<	66	66	68	68	68	68	68	68	64<	63<	66<	67<	64<
	100	66<	66<	67	72	73	76	74	72	75	76	76	65<	66<	68<	69<	68<
	125	65	68	70	69	71	70	70	70	72	73	74	70<	72<	73<	74<	72<
	160	69	71	72	71	69	73	72	73	73	74	75	75	76	78	80	79
	200	67	68	70	71	67	71	70	71	71	72	77	77	78	78	78	75
	250	67	69	68	69	69	69	69	68	70	70	75	77	78	78	74	66
	315	68	68	69	68	68	67	68	67	68	69	74	75	76	75	72	65
	400	66	66	69	68	68	67	67	66	67	70	68	74	75	76	74	68
	500	67	66	68	68	66	65	66	65	68	70	66	73	75	76	72	67
	630	66	66	68	69	67	65	68	68	70	68	74	76	77	76	76	64
	800	66	66	66	69	66	65	68	67	67	63	71	75	73	73	68	63
	1000	69	69	69	71	68	66	68	68	69	65	72	74	74	69	69	59
	1250	70	70	70	72	69	67	69	69	69	66	73	75	74	69	65	58
	1600	77	75	75	73	70	72	71	69	64	72	74	73	68	63	57	
	2000	76	76	74	75	74	72	71	71	69	65	72	73	72	67	62	57
	2500	73	74	72	73	71	72	71	68	64	67	73	72	72	67	62	
	3150	74	74	73	75	72	71	73	71	69	64	72	71	66	62	58	
	4000	89	90	88	86	82	81	79	71	68	73	73	72	68	65	59	
	5000	79	80	80	80	78	75	73	67	63	70	70	70	65	61	56	
	6300	74	77	75	76	75	72	72	70	66	61	69	68	67	62	59	55
	8000	83	86	83	84	83	80	78	77	71	65	74	72	66	63	59	
	10000	71	73	71	72	69	68	67	63	56	65	64	64	58	55	50<	
	OVERALL	91	92	91	89	87	86	85	83	83	87	88	89	88	87	83	

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
2 DISTANCE = 75 METERS

NOISE SOURCE/SUBJECT:	OPERATION:				METEOROLOGY:										IDENTIFICATION:			
	MILITARY POWER	100% RPM	BOTH ENGINES	FREE FLOW	TEMP =	16 C	BAR PRESS =	.762 M HG	REL HUMID =	87 %	RUN 02	TEST 75-002-043	OMEGA 1.4	09 MAY 75	PAGE 2			
J85-GE-4A ENGINE	81	77	80	78	78	79	86	84	82	80	83	87	91	93	91			
FAR FIELD NOISE	78	78	78	79	79	79	83	82	82	80	83	84	87	90	91			
25	84	72	78	73	74	74	85	80	76	79	81	86	88	89	89			
31.5	83	76	78	76	78	77	84	81	78	78	82	84	86	88	88			
40	81	77	80	78	78	79	86	84	82	82	83	87	91	93	91			
50	78	78	78	78	78	79	83	82	82	80	83	84	87	90	91			
63	79	80	79	81	80	81	84	83	84	83	84	88	91	94	94			
80	78	79	79	80	81	82	84	84	84	83	87	91	93	96	94			
100	82	82	83	84	84	84	86	86	86	86	89	94	97	100	96			
125	82	83	84	86	85	85	86	86	87	87	92	97	101	100	95			
160	84	85	86	87	86	86	87	88	87	88	90	93	99	103	102			
200	84	85	87	88	87	88	88	88	88	89	91	92	96	103	106			
250	88	90	92	91	90	90	91	92	94	93	99	107	109	105	101			
315	91	91	94	93	91	92	93	94	93	94	96	95	102	109	111			
400	91	93	94	95	92	93	94	95	95	96	96	104	110	111	106			
500	90	92	93	94	92	94	94	95	95	96	96	105	110	109	104			
630	91	93	94	95	94	94	96	97	97	97	97	105	110	110	105			
800	91	95	94	96	94	95	96	98	98	98	98	105	110	108	103			
1000	95	98	98	97	96	98	99	99	99	97	106	111	108	102	92			
1250	94	97	99	98	97	97	99	99	100	97	106	110	107	101	94			
1600	92	96	99	99	98	97	101	101	101	98	105	109	106	100	93			
2000	88	94	96	97	96	96	100	100	101	98	105	108	106	99	91			
2500	86	92	94	95	95	95	99	99	100	97	104	107	104	98	89			
3150	83	89	91	92	91	96	96	98	96	98	96	103	106	103	96			
4000	82	88	90	91	91	95	96	97	94	101	104	102	95	89	80			
5000	80	86	88	89	89	93	94	96	92	99	102	99	91	85	76			
6300	78	83	85	86	86	91	92	94	90	97	101	98	90	81	75			
8000	77	82	83	84	84	84	88	89	91	89	100	97	90	80	74			
10000	71	77	79	80	80	81	84	85	88	90	97	92	85	74	69			
OVERALL	102	105	107	107	106	106	109	109	110	108	116	120	120	115	107	100		

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

2 DISTANCE = 100 METERS

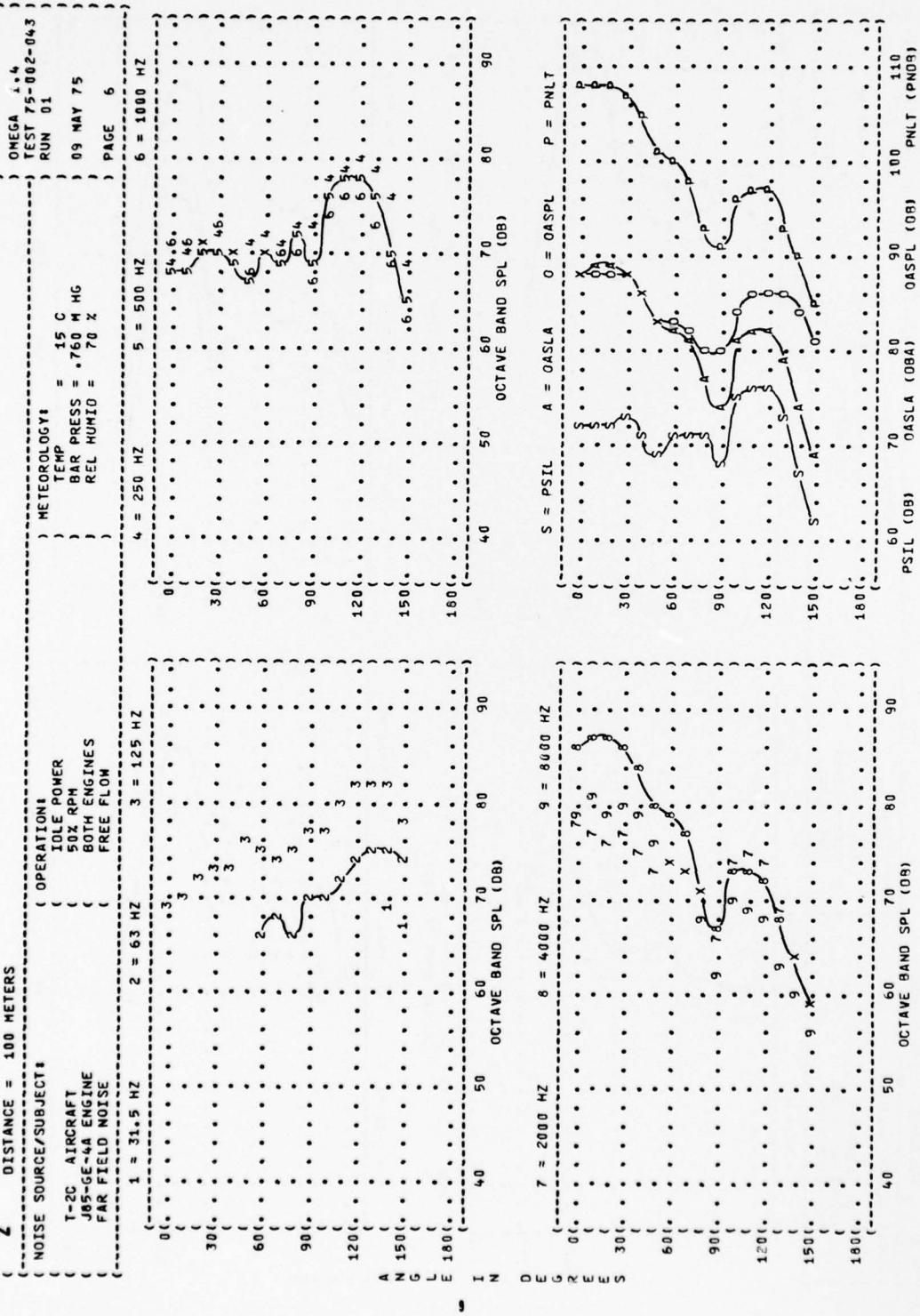
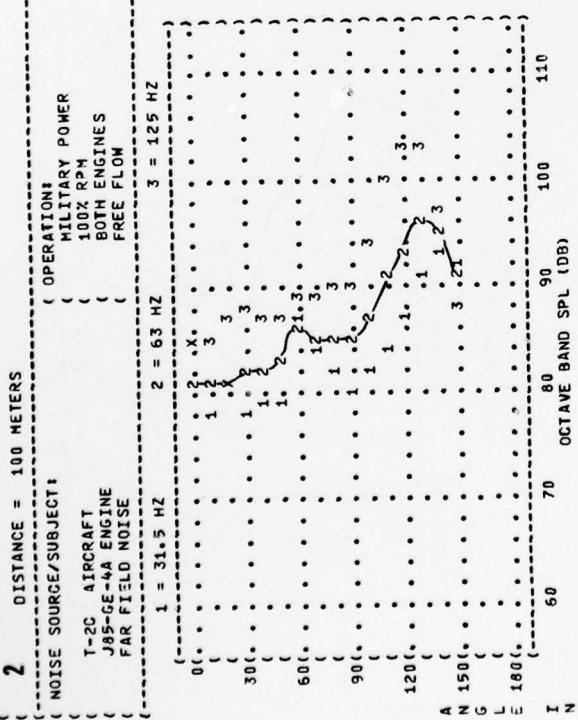


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

2 DISTANCE = 100 METERS



IDENTIFICATION

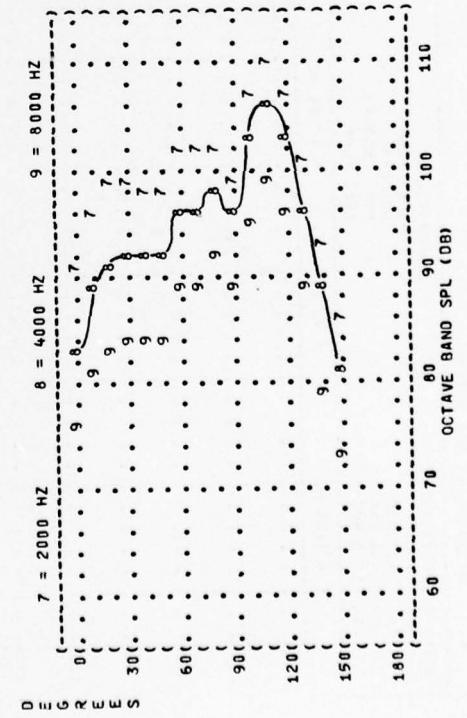
OMEGA 1.4
TEST 75-002-043
RUN 02

METEOROLOGY

TEMP = 15 C
BAR PRESS = .760 M HG

REL HUMID = 70 %

PAGE 6



4 = 250 Hz 5 = 500 Hz 6 = 1000 Hz

1 = 31.5 Hz 2 = 63 Hz 3 = 125 Hz

0 = 2000 Hz 9 = 8000 Hz

D E I G R E E S 300 600 900 1200 1500 1800

N 1501 G L E 1801

I N

60 70 80 OCTAVE BAND SPL (dB) 100 110

60 70 80 OCTAVE BAND SPL (dB) 100 110 120 130

PSIL (dB) OASLA (OASLA) OASPL (OASPL) PNLT (PNLT)

FIGURE: ACOUSTIC POWER LEVEL (PWL)

3

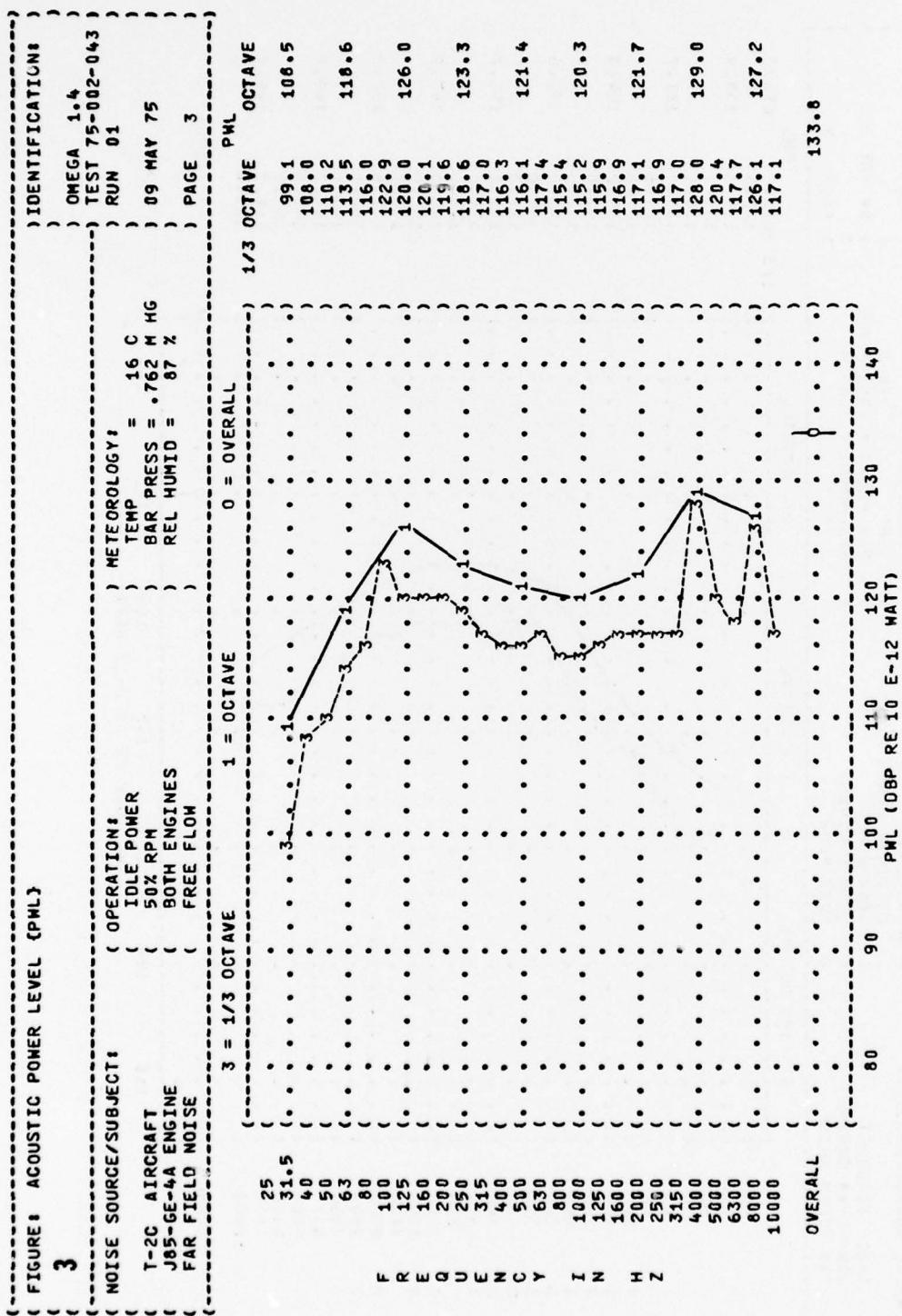


FIGURE: ACOUSTIC POWER LEVEL (PWL)

3

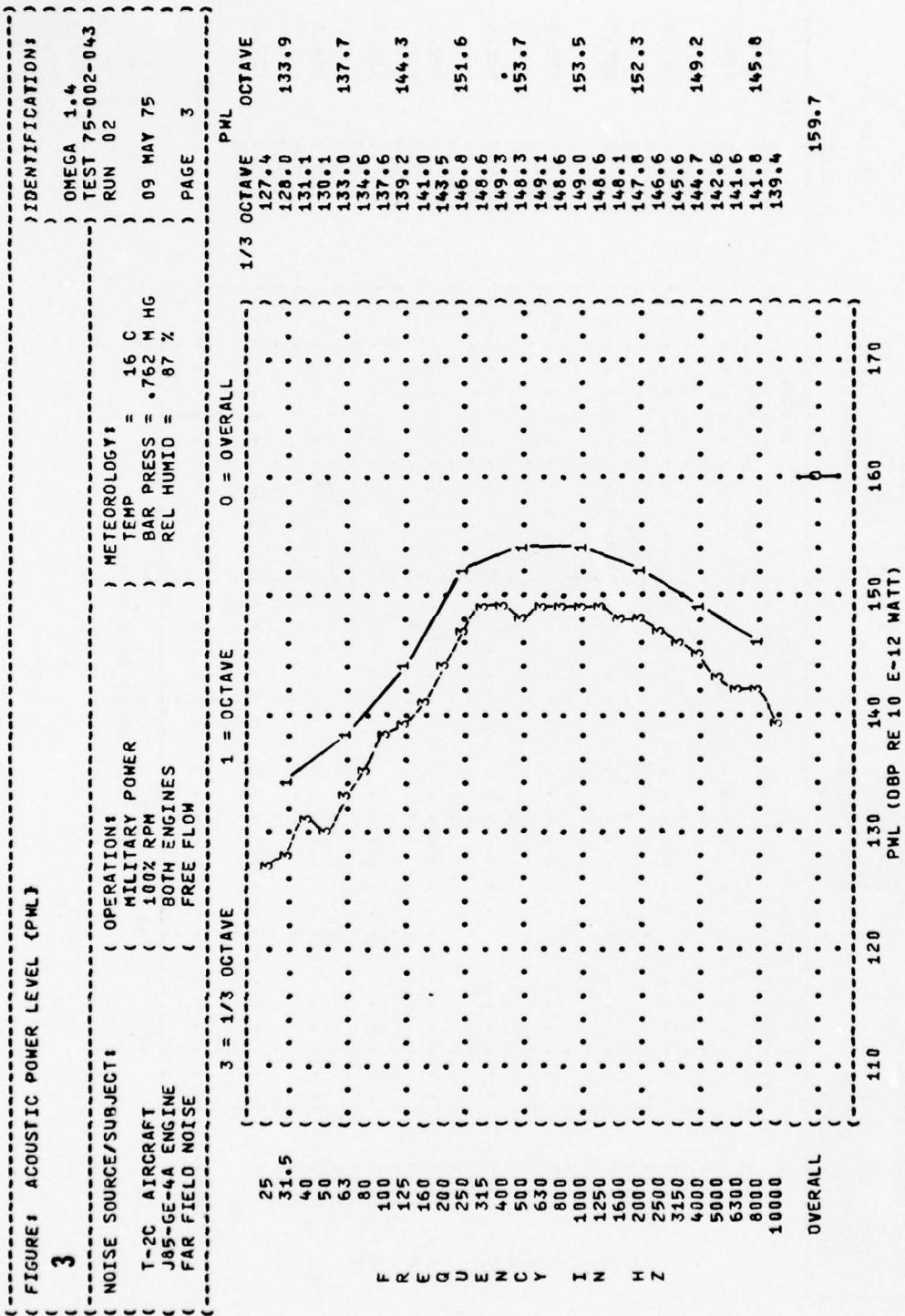


TABLE: DIRECTIVITY INDEX (DB)

3

NOISE SOURCE/SUBJECT:		OPERATION!												IDENTIFICATION													
		T-2C AIRCRAFT			J85-GE-4A ENGINE			FAR FIELD NOISE			IDLE POWER			50X RPM			BOTH ENGINES			FREE FLOW			TEST 75-002-043	OMEGA 1•4	RUN 01		
FREQ (HZ)	OCTAVE	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	TEMP = 16 C	BAR PRESS = 0762 M HG	REL HUMID = 87 %	PAGE 4	PAGE 4	PAGE 4	PAGE 4
25	31.5																				10	10	10	10	10	10	10
40	40																				4	4	4	4	4	4	4
50	50																				5	5	5	5	5	5	5
63	63																				4	4	4	4	4	4	4
80	80																				3	3	3	3	3	3	3
100	100	-12	-12	-11	-6	-5	-2	-3	-6	-3	-2	-1	-1	-2	-1	-1	-0	-1	-1	-0	1	1	1	1	1	1	1
125	125	-9	-9	-7	-4	-5	-4	-5	-5	-3	-2	-1	-0	-0	-1	-0	-1	-0	-1	-0	1	1	1	1	1	1	1
160	160	-6	-4	-3	-4	-6	-2	-3	-2	-2	-1	-0	-0	-1	-0	-1	-0	-1	-0	-0	0	0	0	0	0	0	0
200	200	-8	-7	-4	-4	-7	-4	-4	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	0	0	0	0	0	0	0
250	250	-7	-5	-5	-4	-4	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	0	0	0	0	0	0	0
315	315	-4	-4	-3	-4	-4	-4	-3	-5	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3	-7	-7	-7	-7	-7	-7	-7
400	400	-5	-5	-2	-3	-4	-6	-2	-4	-1	-1	-3	-3	-3	-3	-3	-3	-3	-3	-3	-9	-9	-9	-9	-9	-9	-9
500	500	-4	-5	-3	-3	-5	-6	-3	-3	-1	-1	-5	-2	-2	-2	-2	-2	-2	-2	-2	-10	-10	-10	-10	-10	-10	-10
630	630	-6	-6	-4	-3	-5	-7	-4	-4	-4	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-8	-8	-8	-8	-8	-8	-8
800	800	-4	-4	-4	-1	-4	-5	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-7	-7	-7	-7	-7	-7	-7
1000	1000	-1	-1	-0	-1	-0	-1	-2	-4	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-3	-3	-3	-3	-3	-3	-3
1250	1250	-0	-1	-0	-2	-0	-2	-4	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-13	-13	-13	-13	-13	-13	-13
1600	1600	-6	-4	-4	-4	-1	-1	-1	-1	0	0	0	0	0	0	0	0	0	0	0	-15	-15	-15	-15	-15	-15	-15
2000	2000	-4	-5	-3	-4	-3	-1	-1	-1	0	0	0	0	0	0	0	0	0	0	0	-9	-9	-9	-9	-9	-9	-9
2500	2500	3	4	2	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-14	-14	-14	-14	-14	-14	-14
3150	3150	3	3	2	5	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	-9	-9	-9	-9	-9	-9	-9
4000	4000	8	8	9	7	5	1	0	1	-1	-13	-8	-8	-8	-8	-8	-8	-8	-8	-8	-17	-17	-17	-17	-17	-17	-17
5000	5000	5	7	7	6	5	2	2	1	-6	-11	-3	-3	-3	-3	-3	-3	-3	-3	-3	-17	-17	-17	-17	-17	-17	-17
6300	6300	4	7	5	6	5	2	2	1	0	-4	-9	-1	-1	-1	-1	-1	-1	-1	-1	-15	-15	-15	-15	-15	-15	-15
8000	8000	8	7	5	7	6	2	1	1	0	-6	-12	-4	-4	-4	-4	-4	-4	-4	-4	-14	-14	-14	-14	-14	-14	-14
10000	10000	5	7	5	6	5	2	2	0	-4	-11	-1	-1	-1	-1	-1	-1	-1	-1	-1	-16	-16	-16	-16	-16	-16	-16
OCTAVE		31.5		63		125		250		500		1000		2000		4000		6000		OVERALL		4		5		6	

TABLE I DIRECTIVITY INDEX (DB)

3

NOISE SOURCE/SUBJECT:		OPERATION:		METEOROLOGY:		IDENTIFICATION:															
T-2C AIRCRAFT J85-GE-4A ENGINE FAR FIELD NOISE		MILITARY POWER 100% RPM BOTH ENGINES FREE FLOW		TEMP = 16 C BAR PRESS = .762 HG REL HUMID = 87 %		TEST 75-002-043 RUN 02 09 MAY 75 PAGE 4															
FREQ (HZ)		0	10	20	30	40	50	60	70	80	ANGLE (DEGREES)	90	100	110	120	130	140	150	160	170	180
	1/3 OCTAVE																				
	25	1	-10	-5	-9	-8	-9	-3	-2	-6	-7	-3	-2	-5	-5	-2	-1	4	5	7	
	31.5	-10	-7	-5	-7	-5	-6	-1	-2	-5	-5	-1	-1	-3	-1	3	6	5	5	5	
	40	-5	-9	-6	-8	-8	-7	-0	-2	-4	-6	-4	-3	-1	5	7	5	5	5	5	
	50	-7	-7	-8	-7	-6	-6	-2	-3	-3	-5	-2	-1	2	5	6	5	6	5	5	
	63	-8	-8	-8	-7	-8	-6	-4	-4	-4	-5	-4	-0	3	6	6	6	6	6	2	
	80	-11	-10	-10	-9	-9	-8	-5	-5	-6	-6	-6	-3	2	4	7	5	5	5	0	
	100	-10	-11	-10	-9	-9	-9	-7	-6	-6	-7	-7	-3	2	5	7	4	4	4	-4	
	125	-12	-11	-10	-8	-9	-9	-8	-7	-7	-7	-7	-2	3	7	6	1	-9	-9	-9	
	160	-11	-11	-9	-9	-9	-9	-8	-8	-6	-6	-6	-3	4	7	7	-5	-5	-5	-14	
	200	-14	-13	-11	-10	-10	-12	-10	-10	-8	-7	-7	-3	4	8	5	-12	-12	-12	-17	
	250	-13	-12	-10	-10	-12	-12	-12	-11	-9	-8	-9	-2	6	8	4	-10	-10	-10	-17	
	315	-13	-12	-10	-10	-12	-12	-11	-10	-10	-8	-8	-1	5	8	3	-5	-5	-5	-20	
	400	-13	-11	-10	-9	-12	-11	-11	-10	-9	-8	-8	0	6	7	2	-7	-7	-7	-20	
	500	-13	-11	-10	-9	-11	-9	-11	-9	-8	-8	-7	-7	2	7	6	1	-11	-11	-18	
	630	-13	-10	-10	-9	-10	-10	-10	-7	-7	-7	-7	-1	7	6	1	-13	-13	-17		
	800	-12	-8	-9	-8	-9	-8	-6	-6	-5	-5	-5	-7	2	7	5	0	-12	-12	-17	
	1000	-8	-6	-5	-6	-7	-8	-5	-4	-5	-6	-6	3	7	5	-1	-11	-15	-15		
	1250	-9	-6	-4	-5	-6	-6	-4	-4	-4	-6	-6	3	7	4	-2	-9	-9	-17		
	1600	-10	-6	-3	-3	-4	-5	-2	-2	-2	-5	-5	3	6	4	-2	-9	-9	-16		
	2000	-14	-8	-6	-5	-6	-6	-2	-2	-1	-4	-4	3	6	4	-3	-11	-17	-17		
	2500	-14	-8	-6	-6	-6	-5	-2	-2	-0	-4	-4	3	6	3	-3	-11	-17	-17		
	3150	-16	-11	-8	-8	-8	-8	-4	-3	-2	-3	-3	3	7	4	-3	-11	-17	-17		
	4000	-16	-10	-8	-7	-7	-7	-3	-2	-1	-4	-4	3	6	4	-3	-9	-9	-18		
	5000	-15	-9	-7	-6	-7	-6	-2	-2	0	-3	-3	3	6	3	-4	-10	-19	-19		
	6300	-16	-11	-9	-8	-8	-8	-3	-2	-0	-4	-4	3	7	4	-4	-13	-19	-19		
	8000	-16	-11	-10	-9	-9	-9	-5	-4	-2	-4	-4	3	7	4	-3	-13	-19	-19		
	10000	-16	-12	-10	-9	-9	-8	-5	-4	-1	-5	-5	1	8	3	-4	-15	-20	-20		
	OCTAVE																				
	31.5	-2	-9	-5	-8	-7	-7	-1	-2	-4	-6	-6	-4	-3	-1	3	6	6	5	5	
	63	-9	-9	-9	-8	-7	-7	-4	-4	-5	-5	-5	-2	-2	-2	0	4	6	6	2	
	125	-11	-11	-10	-9	-9	-9	-8	-7	-6	-7	-7	-3	3	6	0	-6	-6	-6	-6	
	250	-13	-12	-10	-10	-12	-11	-10	-9	-8	-8	-8	-2	5	8	3	-7	-18	-18		
	500	-13	-11	-10	-9	-11	-10	-10	-8	-7	-7	-7	1	7	5	1	-9	-18	-18		
	1000	-10	-6	-6	-6	-7	-5	-5	-5	-4	-4	-4	2	7	5	-1	-11	-16	-16		
	2000	-12	-7	-5	-4	-5	-5	-2	-2	-1	-4	-4	3	6	4	-3	-10	-17	-17		
	4000	-16	-10	-8	-7	-7	-7	-3	-3	-1	-3	-3	3	7	4	-3	-10	-18	-18		
	8000	-16	-11	-9	-8	-8	-8	-4	-3	-1	-4	-4	3	7	4	-4	-13	-19	-19		
	OVERALL	-12	-9	-7	-7	-8	-8	-5	-5	-4	-6	-6	2	6	6	1	-7	-14	-14		

FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
EQUAL LEVEL CONTOURS (DB)

4

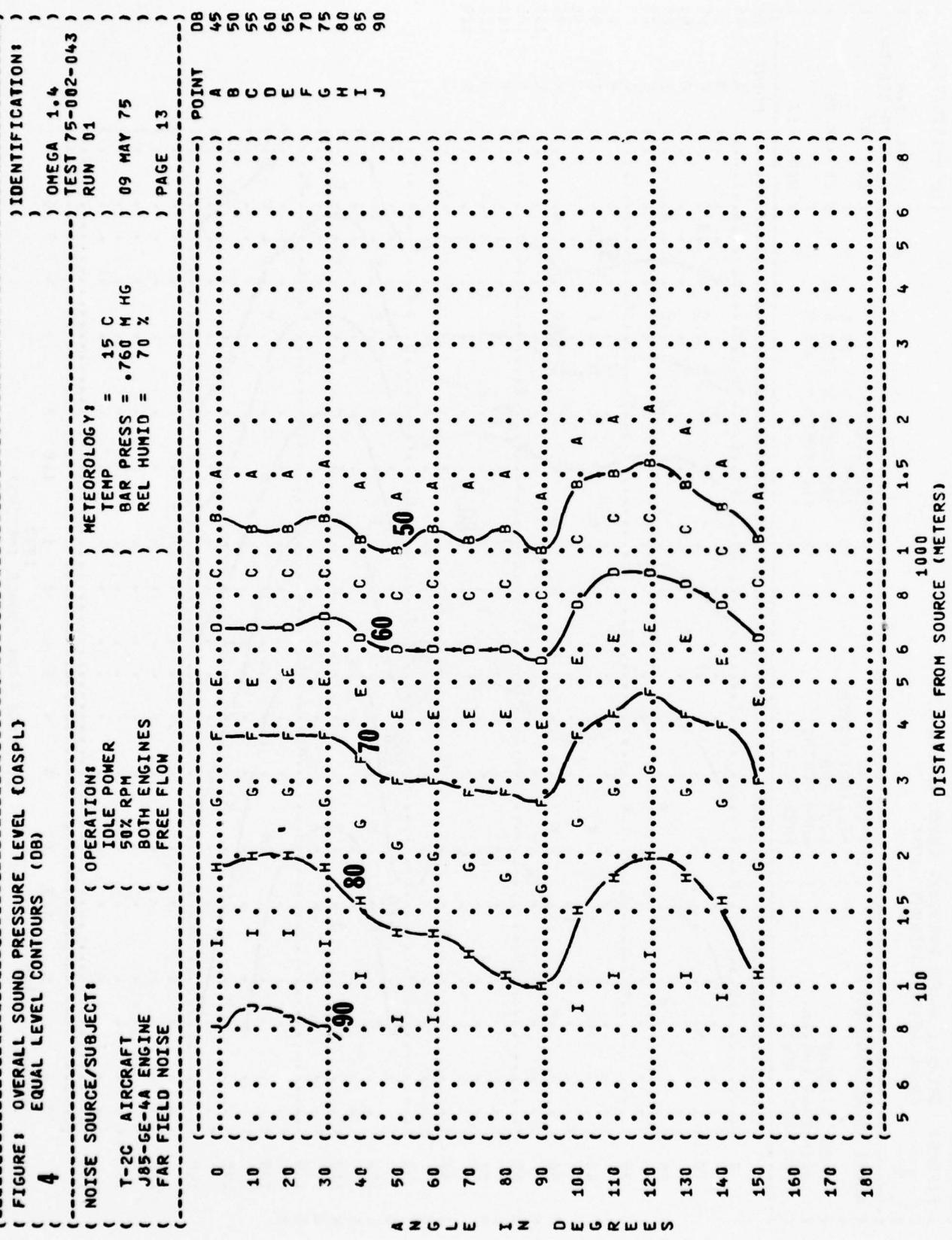


FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
4
EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-043
RUN 02

PAGE 13

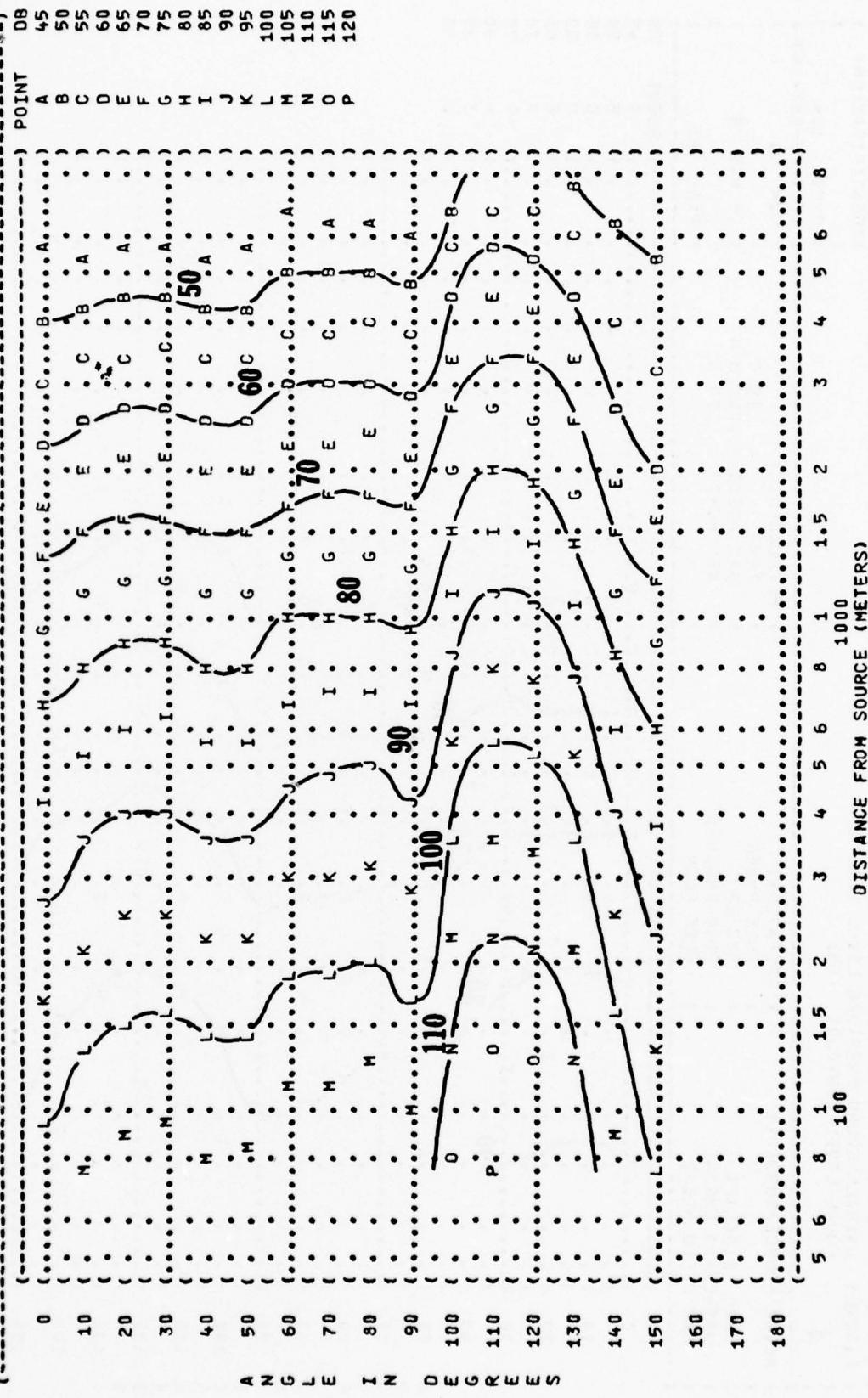


FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

5

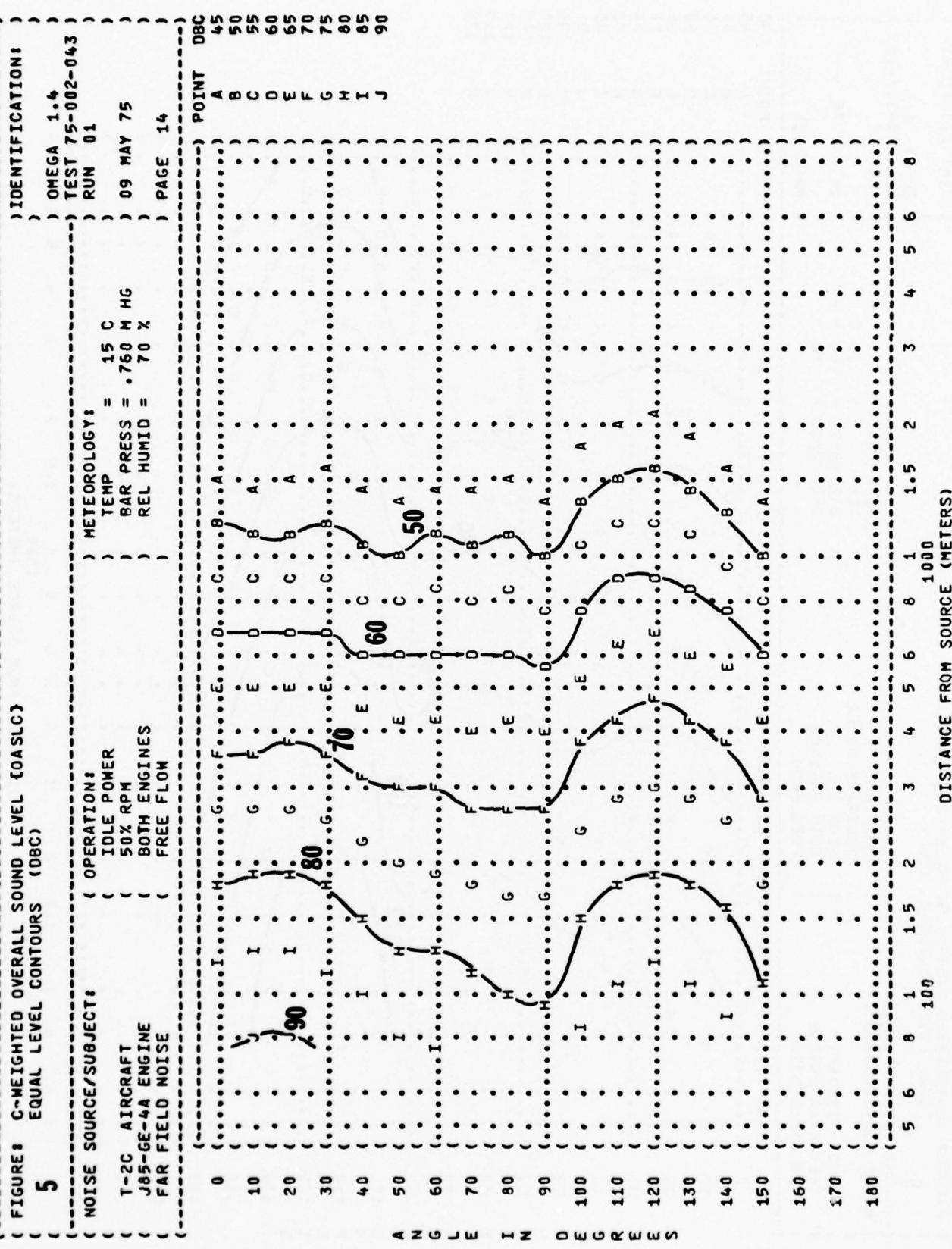


FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (DBC)
5
 EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT: T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION: MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

TEST 75-002-043
 RUN 02

TEMP = 15 C
 BAR PRESS = 760 M HG
 REL HUMID = 70 %

09 MAY 75
 PAGE 14

METEOROLOGY:

POINT DBC

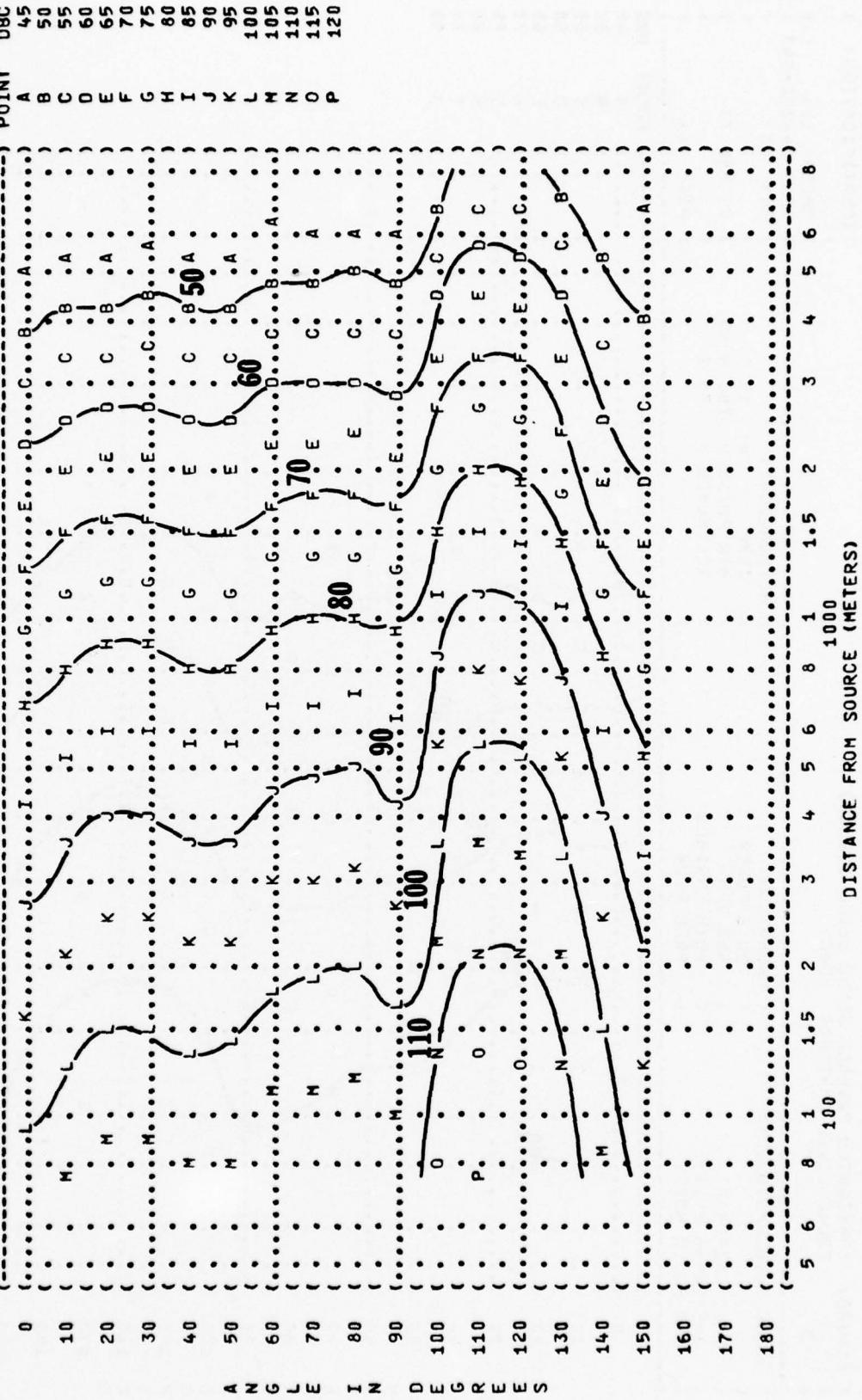


FIGURE 1 A-WEIGHTED OVERALL SOUND LEVEL (OASA)
6 EQUAL LEVEL CONTOURS (OBA)

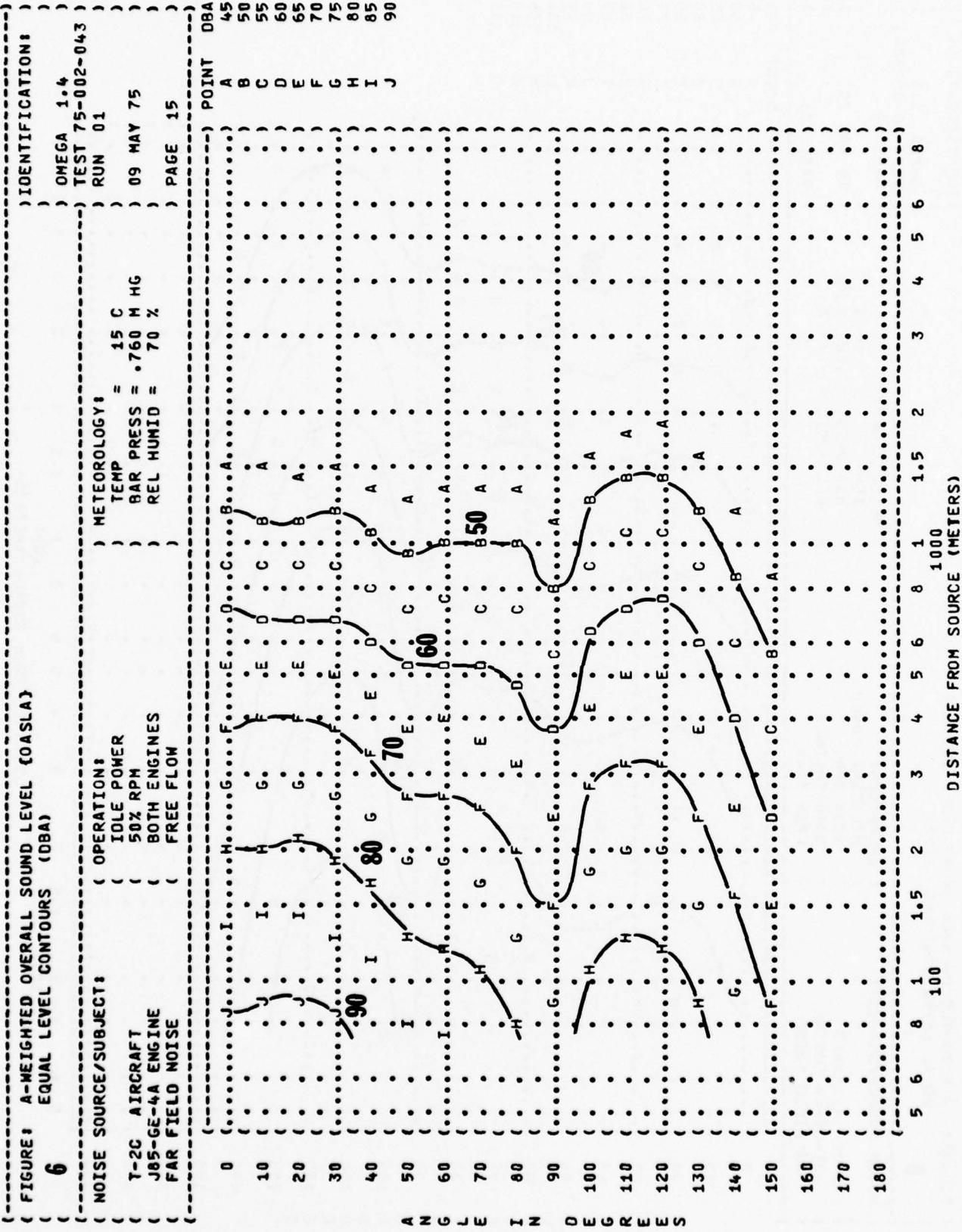


FIGURE 1 A-WEIGHTED OVERALL SOUND LEVEL (DBA)
EQUAL LEVEL CONTOURS (DBA)

6

NOISE SOURCE/SUBJECT:
T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 HG
REL HUMID = 70 %
PAGE 15

IDENTIFICATION:
OMEGA 104
TEST 75-002-043
RUN 02

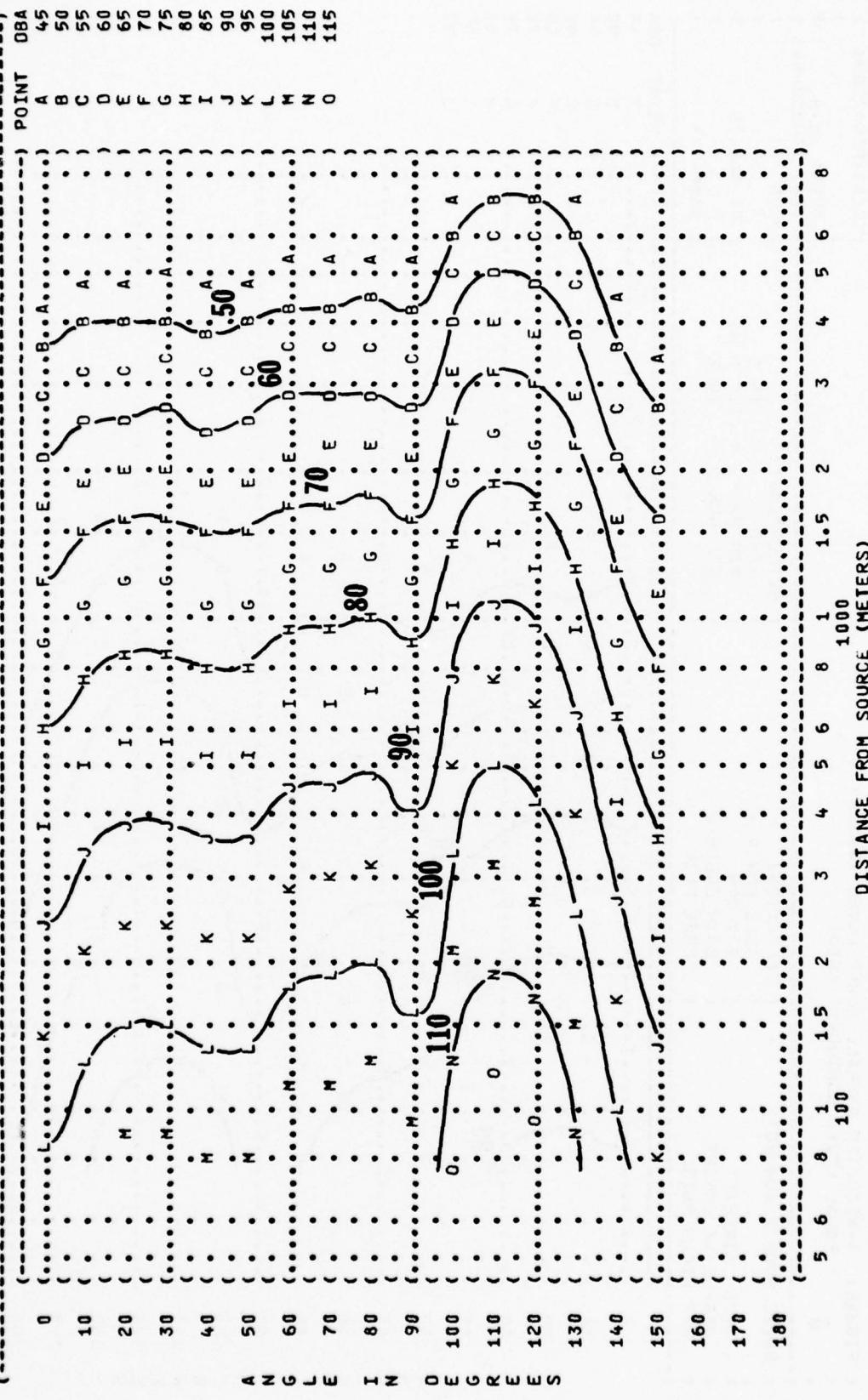


FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

7

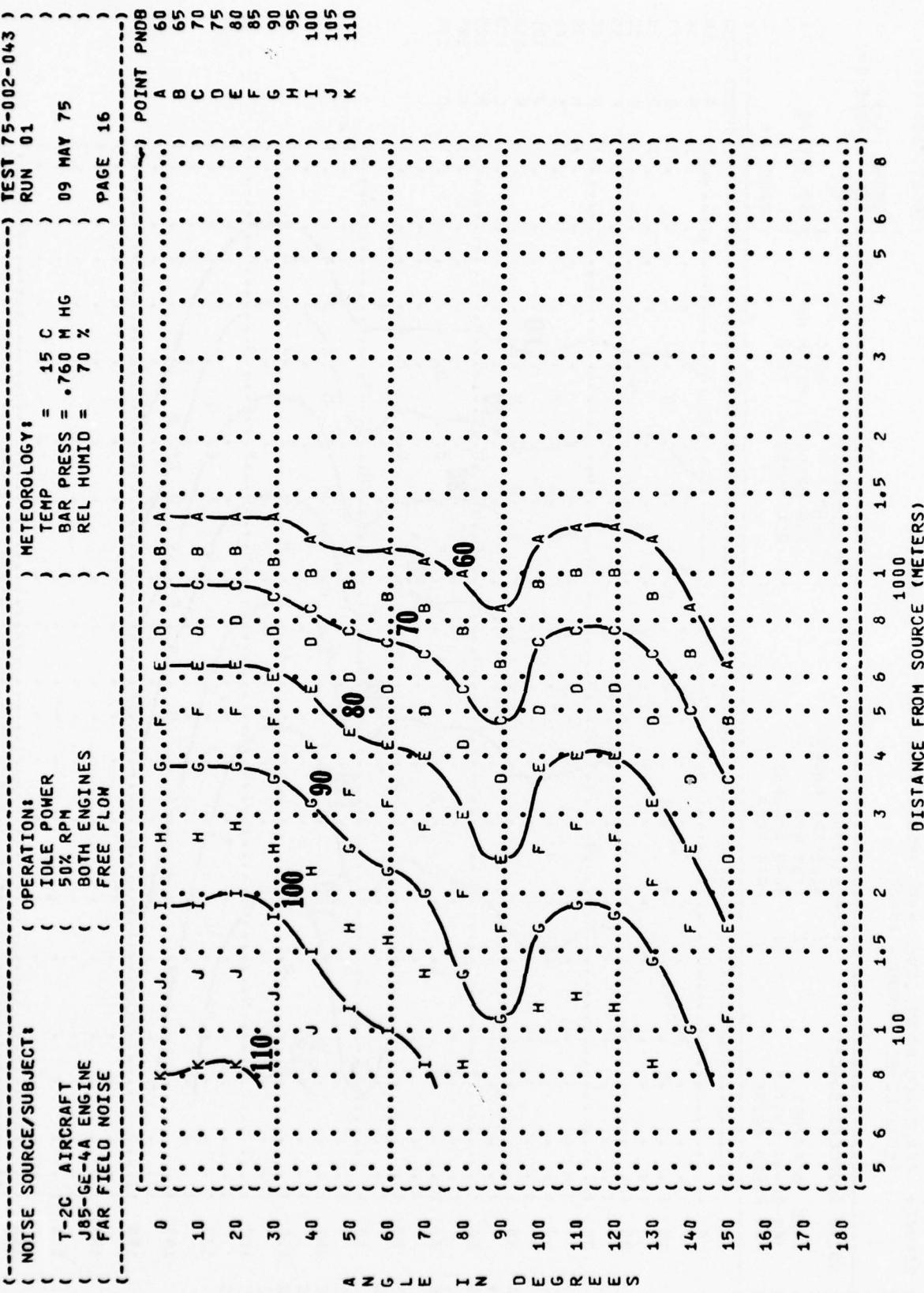


FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
7 EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:

T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE
MILITARY POWER
100% RPM
BOTH ENGINES
FREE FLOW

OPERATION:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
TEST 75-002-043
RUN 02
09 MAY 75
PAGE 16

IDENTIFICATION:

OMEGA 1-4

TEST 75-002-043
RUN 02
09 MAY 75
PAGE 16

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
TEST 75-002-043
RUN 02
09 MAY 75
PAGE 16

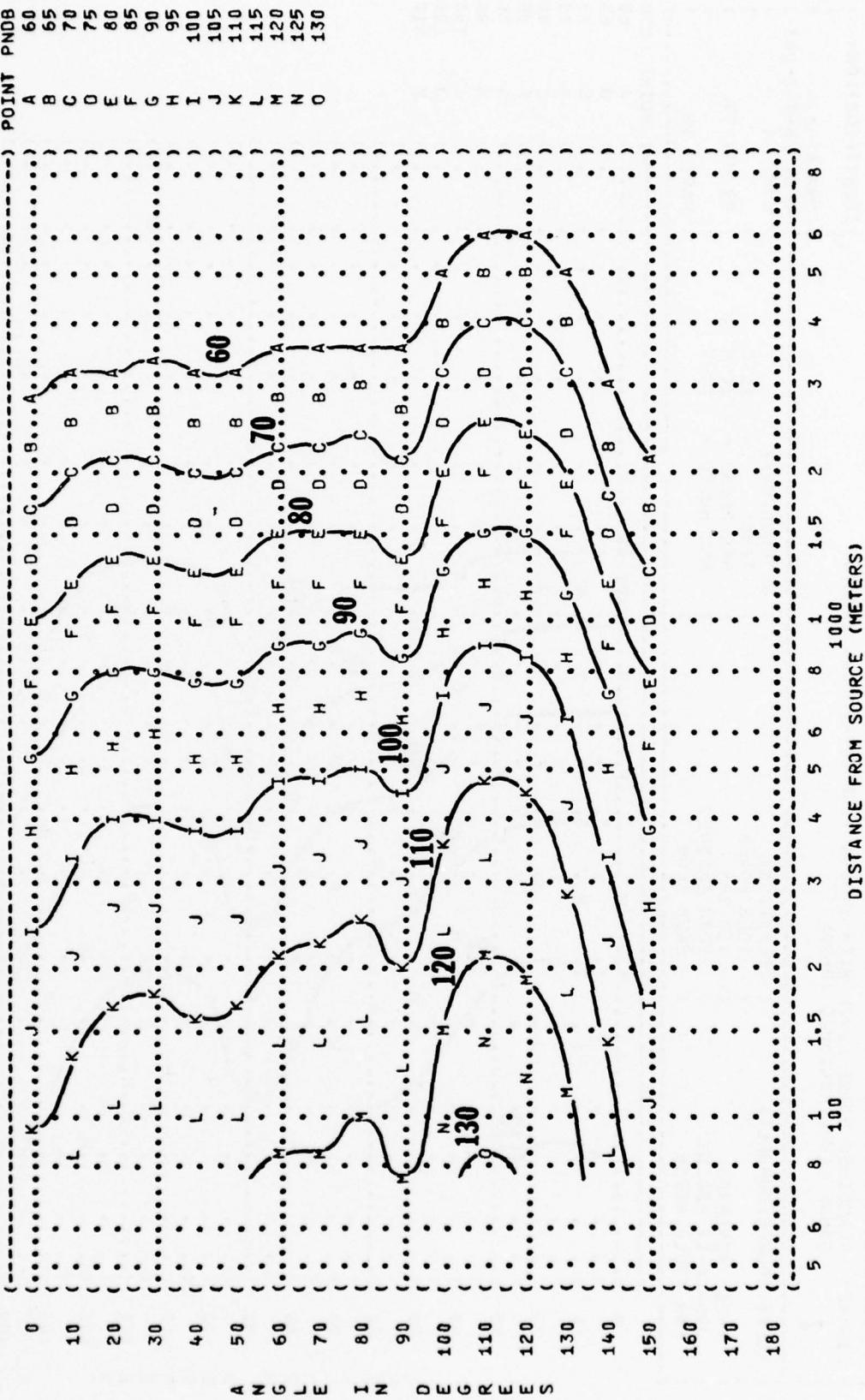


FIGURE 1 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
8 EQUAL LEVEL CONTOURS (DB)

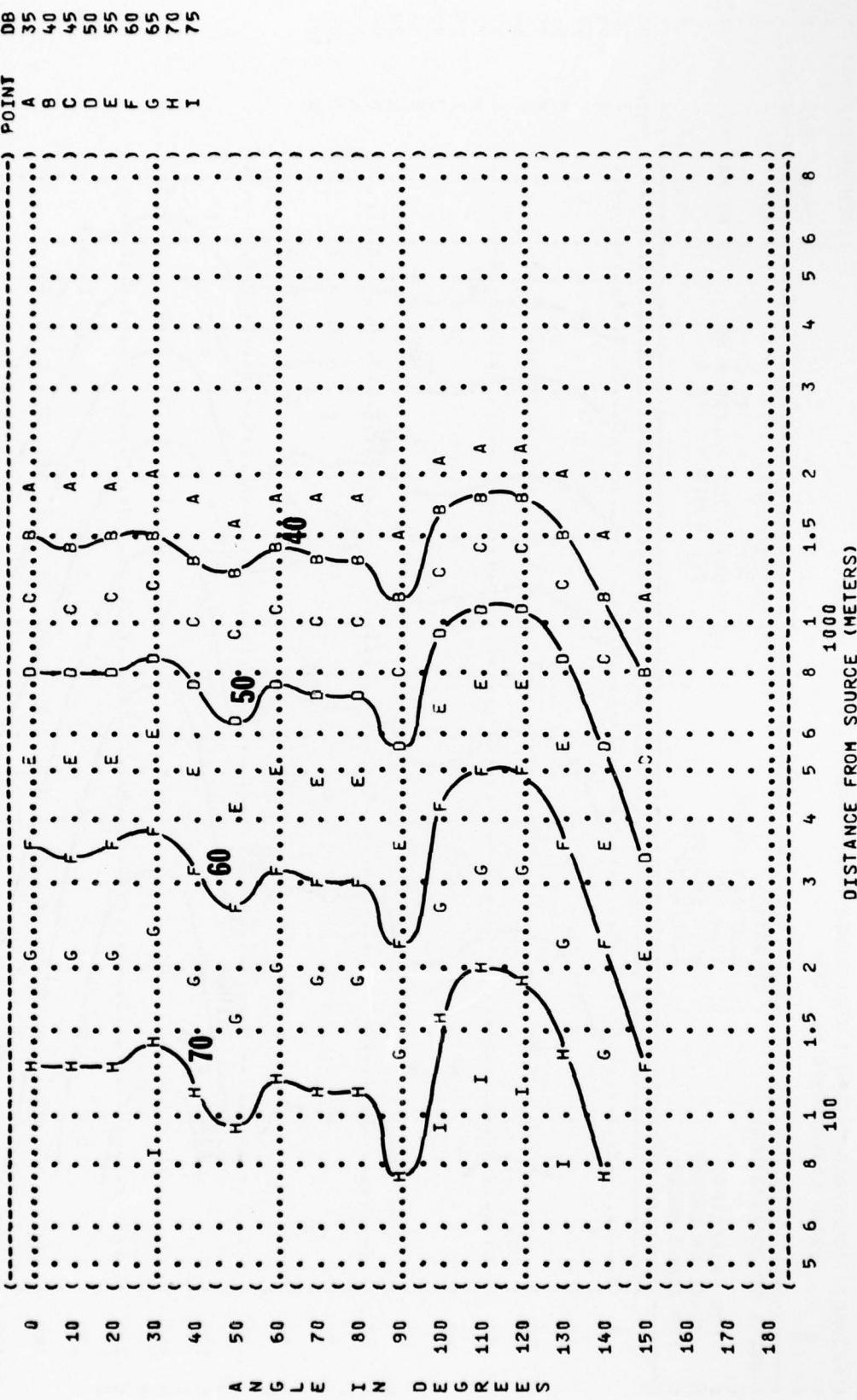
NOISE SOURCE/SUBJECT:
 T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 IDLE POWER
 50% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 Hg
 REL HUMID = 70 %

TEST 75-002-043
 RUN 01
 09 MAY 75
 PAGE 17

IDENTIFICATION:



(FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
 (8 EQUAL LEVEL CONTOURS (DB)

(NOISE SOURCE/SUBJECT:
 (T-2C AIRCRAFT
 (J85-GE-4A ENGINE
 (FAR FIELD NOISE

(OPERATION:
 (MILITARY POWER
 (100% RPM
 (BOTH ENGINES
 (FREE FLOW

) METEOROLOGY:
) TEMP = 15 C
) BAR PRESS = .760 M HG
) REL HUMID = 70 %

) IDENTIFICATION:
) OMEGA 1.4
) TEST 75-002-043
) RUN 02
) 09 MAY 75
) PAGE 17

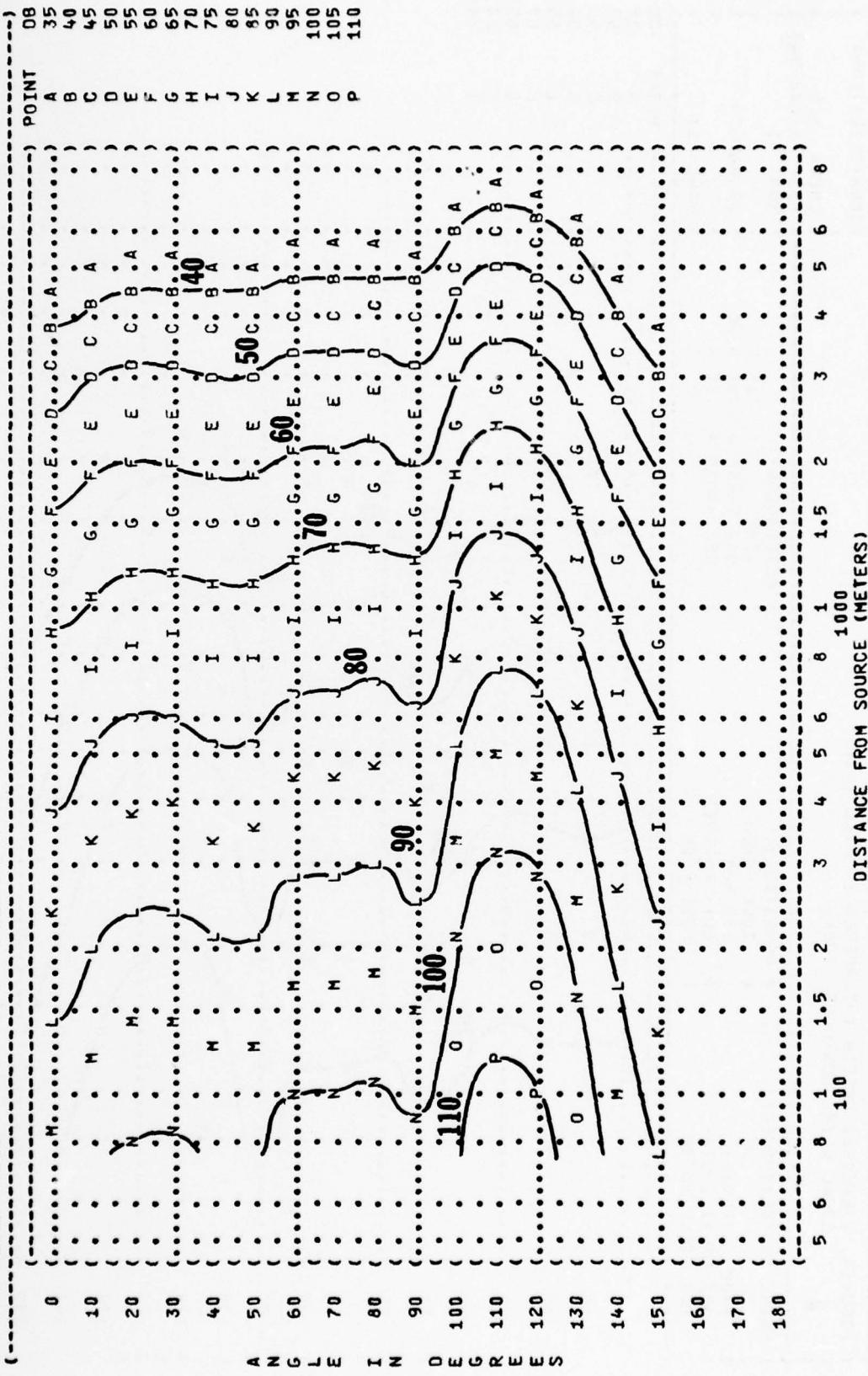


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
 9 EQUAL TIME CONTOURS (MINUTES)

NOISE SOURCE/SUBJECT: (OPERATION:
 T-2C AIRCRAFT (TOLE POWER
 J85-GE-4A ENGINE (50% RPM
 FAR FIELD NOISE (BOTH ENGINES
 (FREE FLOW

0 < (

10 < (

20 < (

30 < (

40 < (

PERSONNEL MAY BE EXPOSED UP TO 960 MINUTES PER DAY
 AT ALL DISTANCES FROM SOURCE EQUAL TO OR GREATER THAN 75 METERS
 FOR ALL ANGLES EVALUATED (INDICATED BY < AT LEFT)
 UNDER THE FOLLOWING EAR PROTECTION CONDITIONS!

I 80 < MINIMUM QPL EAR MUFFS
 N 90 < AMERICAN OPTICAL 1700 EAR MUFFS
 D 100 < V-51R EAR PLUGS
 G 110 < COMFIT TRIPLE FLANGE EAR PLUGS
 R 120 < H-133 GROUND COMMUNICATION UNIT
 E 130 <
 S 140 <
 E 150 <
 G 160 <
 R 170 <
 E 180 <

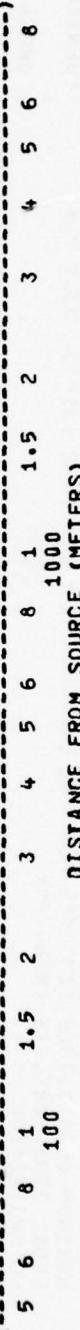


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
9
 EQUAL TIME CONTOURS (MINUTES)
 MINIMUM QPL EAR MUFFS

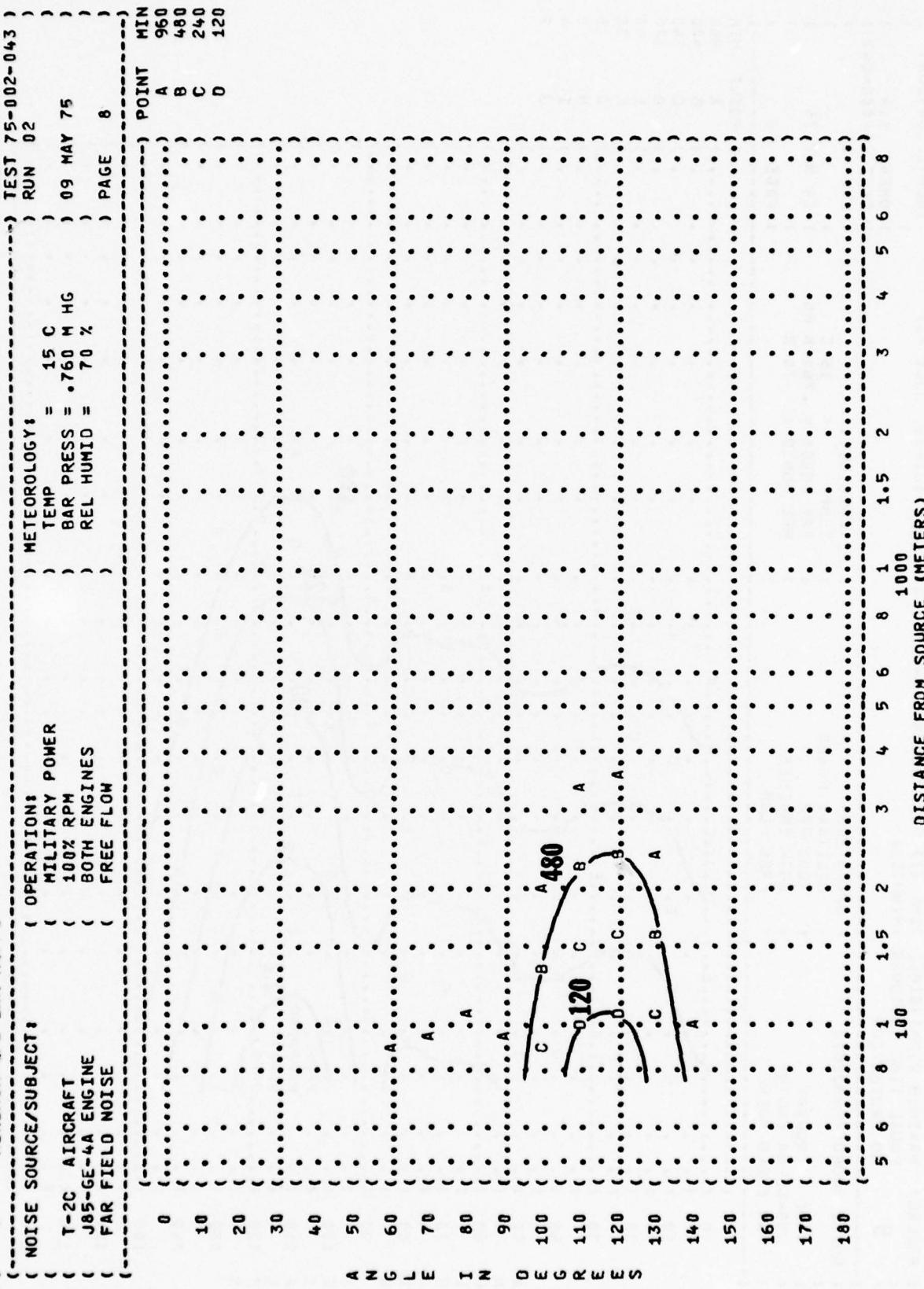


FIGURE: MAXIMUM PERMISSIBLE TIME ("T") FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

9 EQUAL TIME CONTOURS (MINUTES)

AMERICAN OPTICAL 1700 EAR MUFFS

NOISE SOURCE/SUBJECT: T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE

OPERATION: MILITARY POWER
100% RPM
BOTH ENGINES
FREE FLOW

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-043

RUN 02

15 C

BAR PRESS = .760 M HG

REL HUMID = 70 %

PAGE 9

POINT MIN

A 960

B 480

C 240

METEOROLOGY:

TEMP =

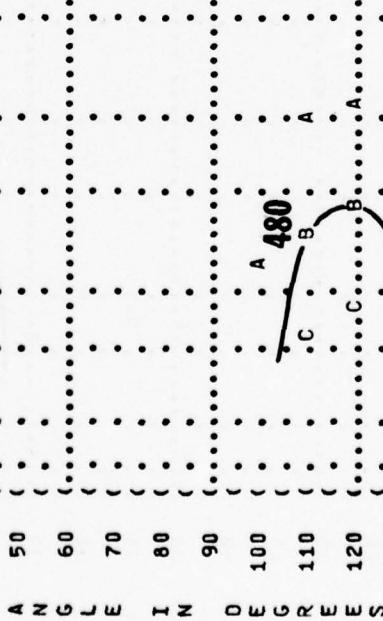
BAR PRESS =

REL HUMID =

PAGE

9

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180



DISTANCE FROM SOURCE (METERS)

1000

100

100

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
9
 EQUAL TIME CONTOURS (MINUTES)
 V-51R EAR PLUGS

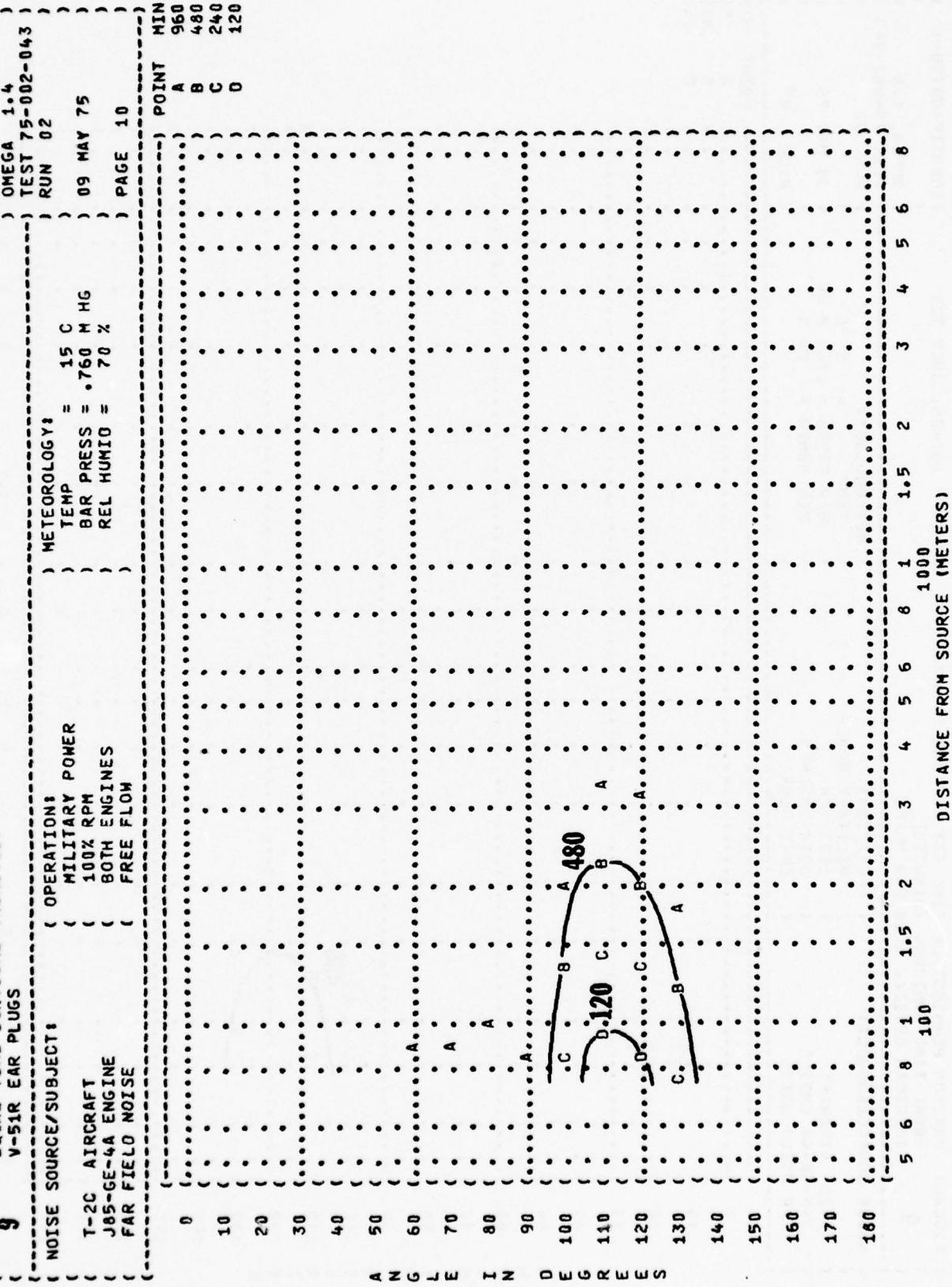


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
 9 EQUAL TIME CONTOURS (MINUTES)
 CONFIT TRIPLE FLANGE EAR PLUGS

NOISE SOURCE/SUBJECT: (OPERATION:
 T-2C AIRCRAFT (MILITARY POWER)
 J85-GE-4A ENGINE (100X RPM)
 FAR FIELD NOISE (BOTH ENGINES)
 (FREE FLOW)

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-043
 RUN 02
 PAGE 11

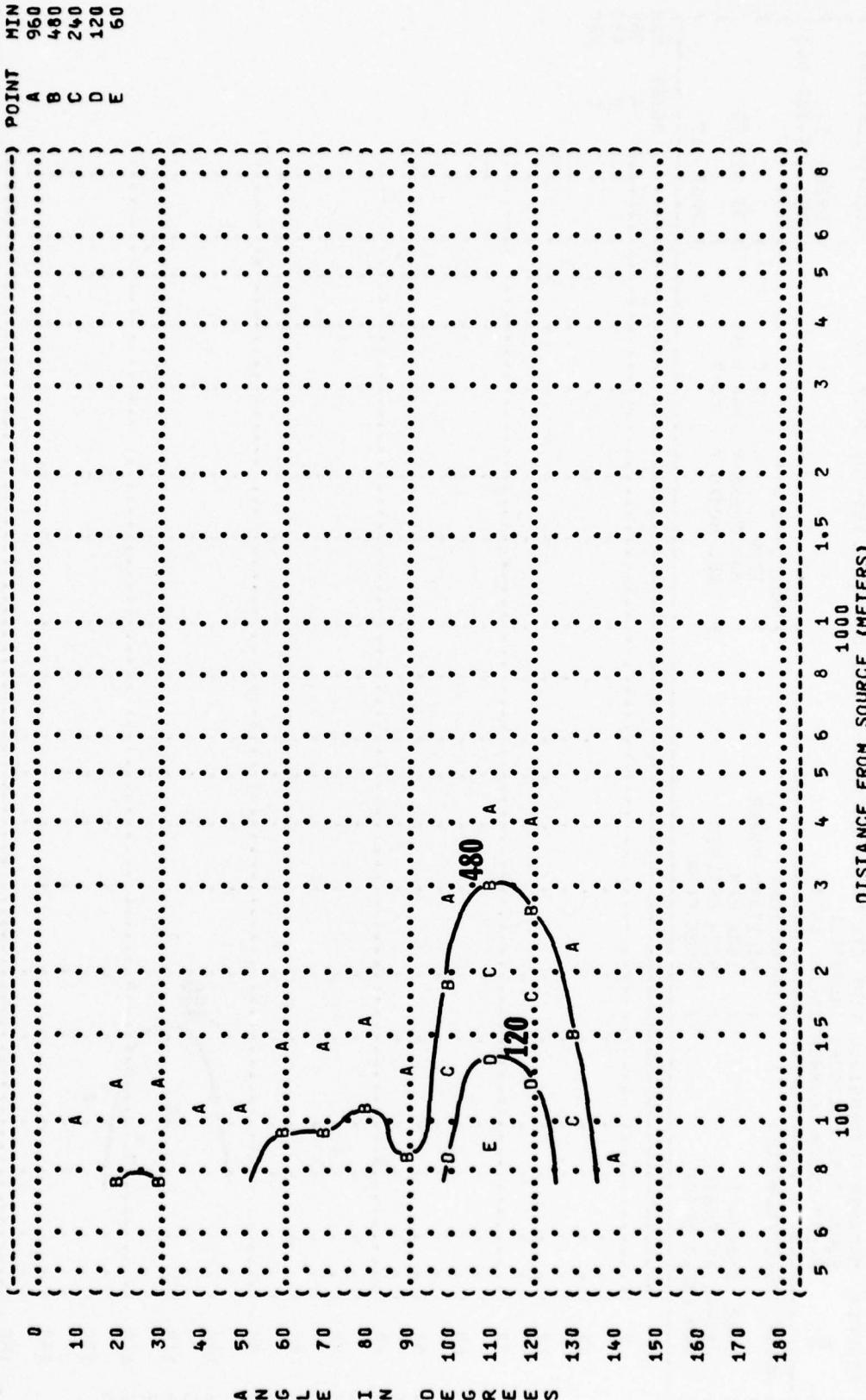


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
 EQUAL TIME CONTOURS (MINUTES)
 9 H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT: T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION: MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY: TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

TEST 75-002-043
 RUN 02
 PAGE 12

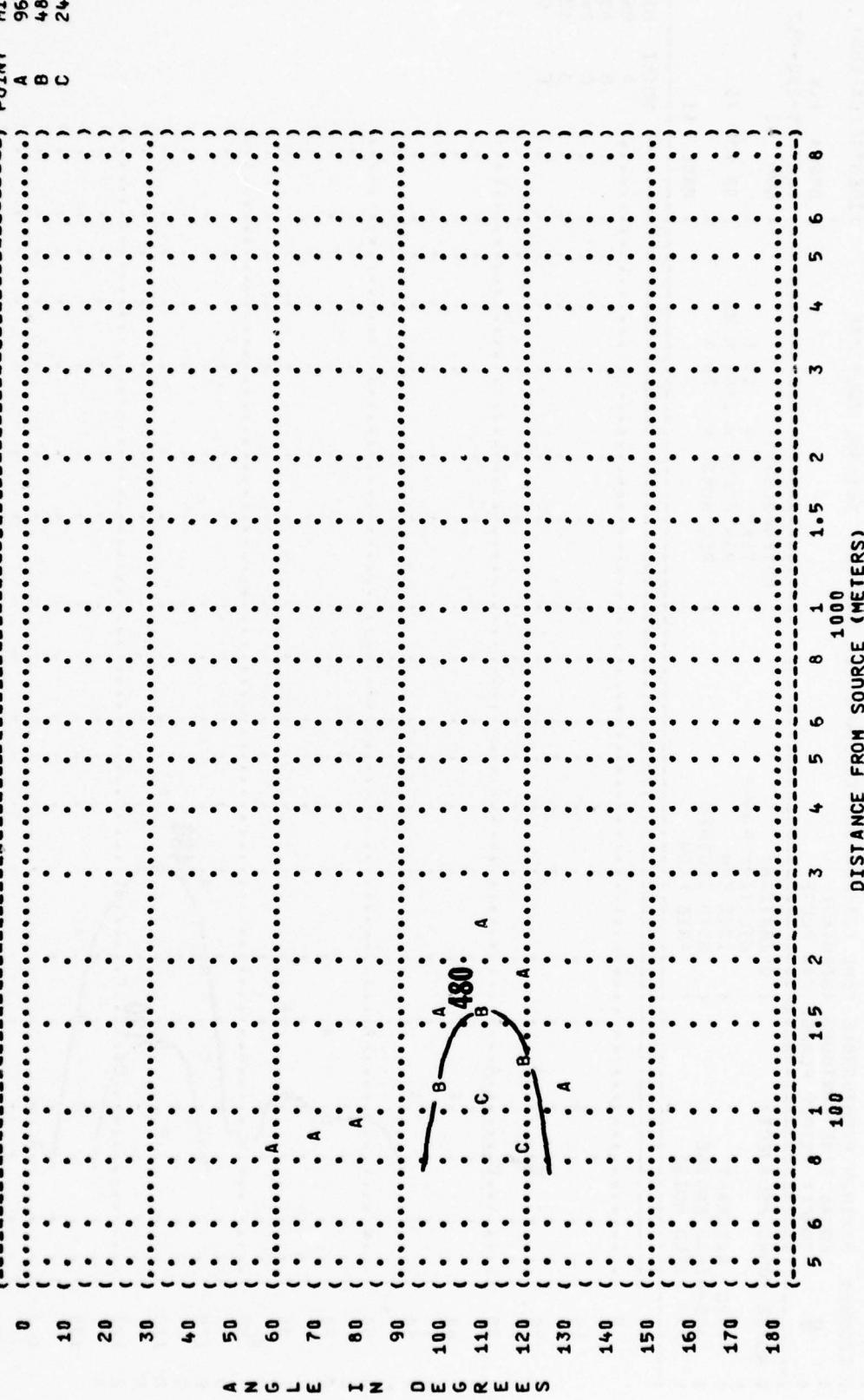


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (dB)

10 31.5 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:	OPERATION:			POINT	DB
	IDLE POWER	50% RPM	BOTH ENGINES		
T-2C AIRCRAFT J65-GE-4A ENGINE	•	•	•	A	35
FAR FIELD NOISE	•	•	•	B	40
	•	•	•	C	45
	•	•	•	D	50
	•	•	•	E	55
	•	•	•	F	60
	•	•	•	G	65
	•	•	•	H	70
				PAGE	18

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 Hg
REL HUMID = 70 %

DISTANCE FROM SOURCE (METERS)

FIGURE: SOUND PRESSURE LEVEL (SPL)
10
 EQUAL LEVEL CONTOURS (DB)
 63 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:

- (T-2C AIRCRAFT
- (J85-GE-4A ENGINE
- (FAR FIELD NOISE

OPERATION:

- (IDLE POWER
- (50% RPM
- (BOTH ENGINES
- (FREE FLOW

METEOROLOGY:

- (TEMP = 15 C
- (BAR PRESS = .760 M HG
- (REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-043

RUN 01

PAGE 19

POINT 08

A 35

B 40

C 45

D 50

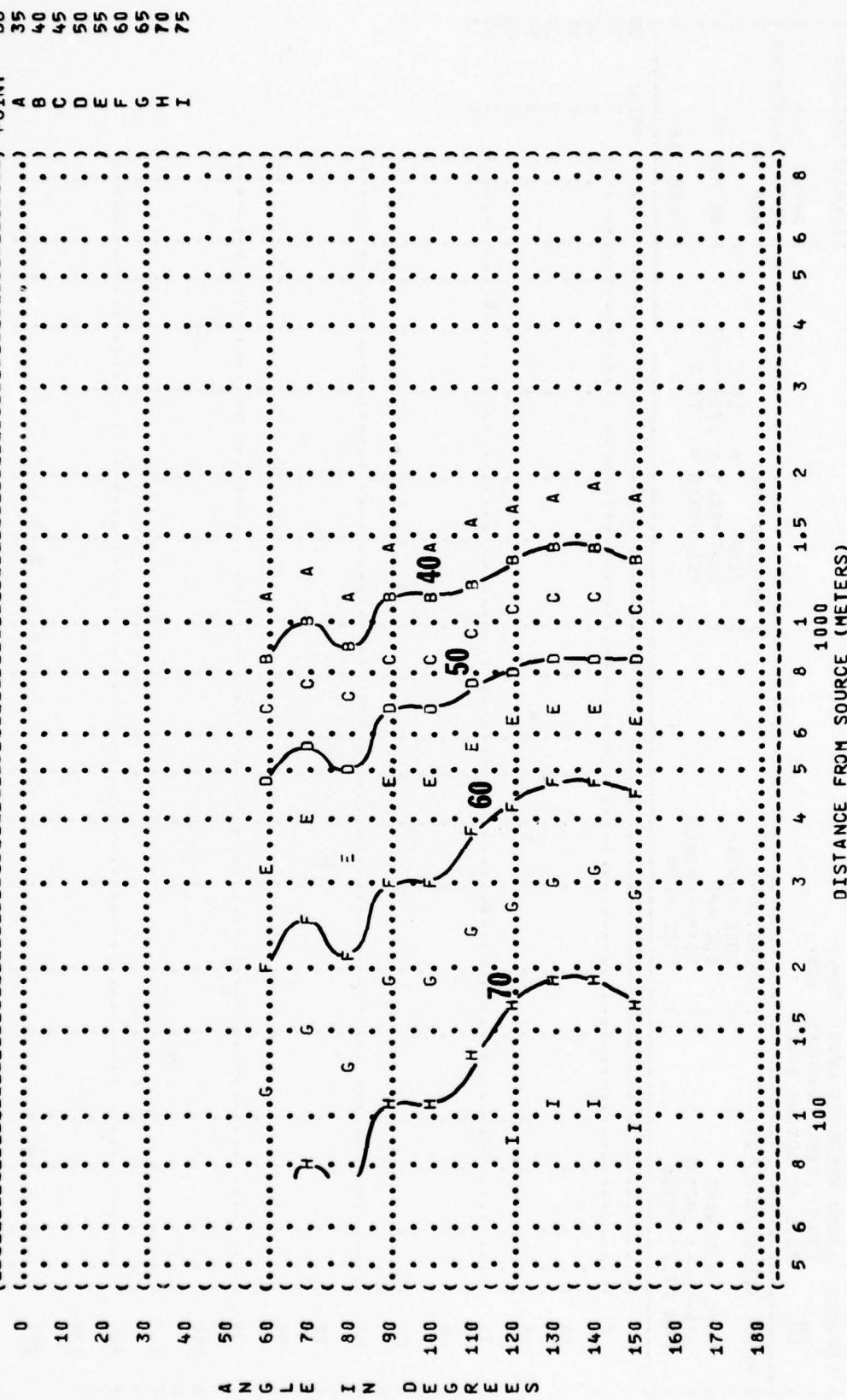
E 55

F 60

G 65

H 70

I 75



{ FIGURE 4 SOUND PRESSURE LEVEL (SPL)
 { 10 EQUAL LEVEL CONTOURS (DB)
 { 125 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:

T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 IDLE POWER
 50% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 Hg
 REL HUMID = 70 %
 TEST 75-002-043
 RUN 01
 PAGE 20

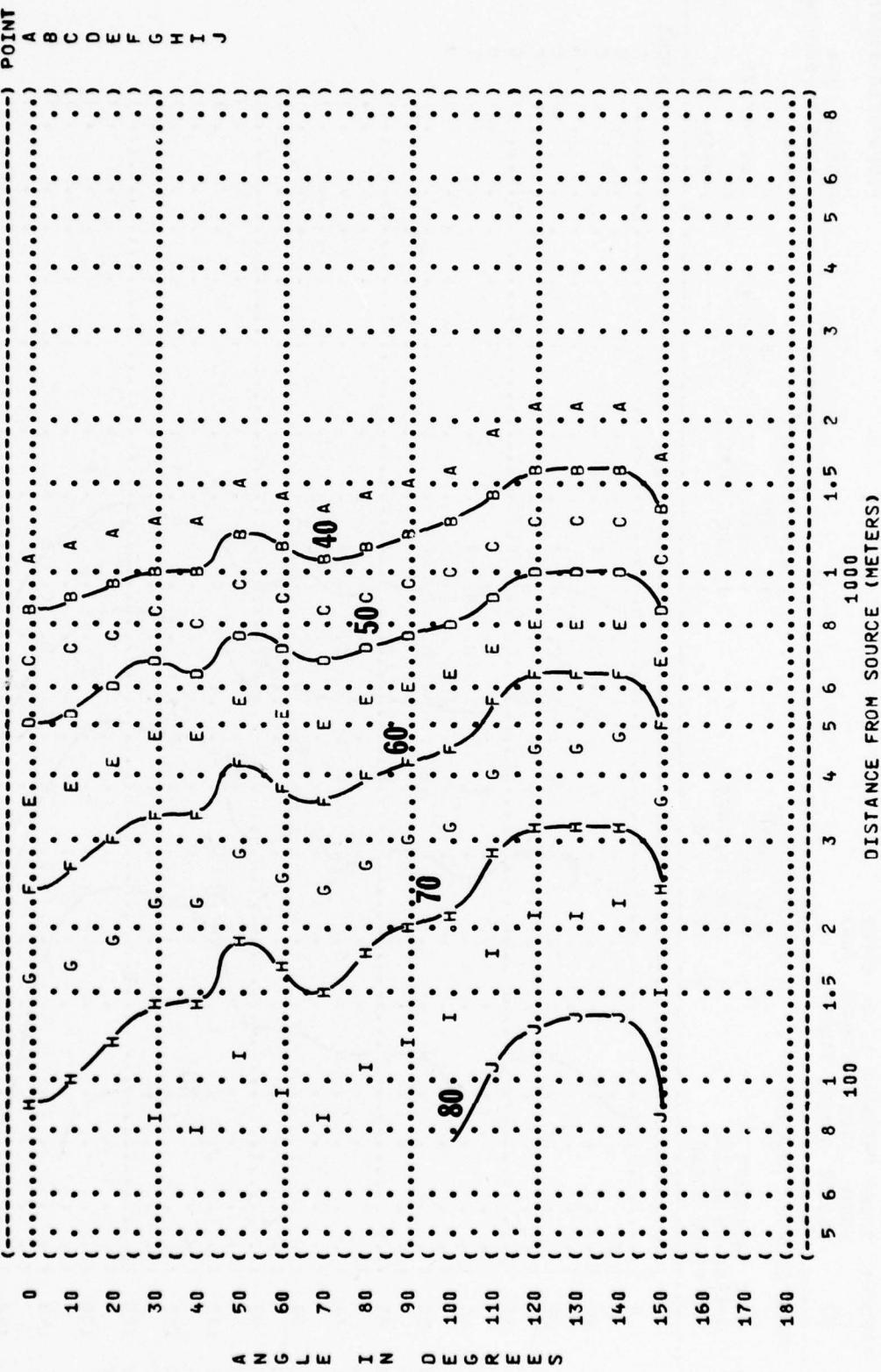


FIGURE 10 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL OCTAVE BAND

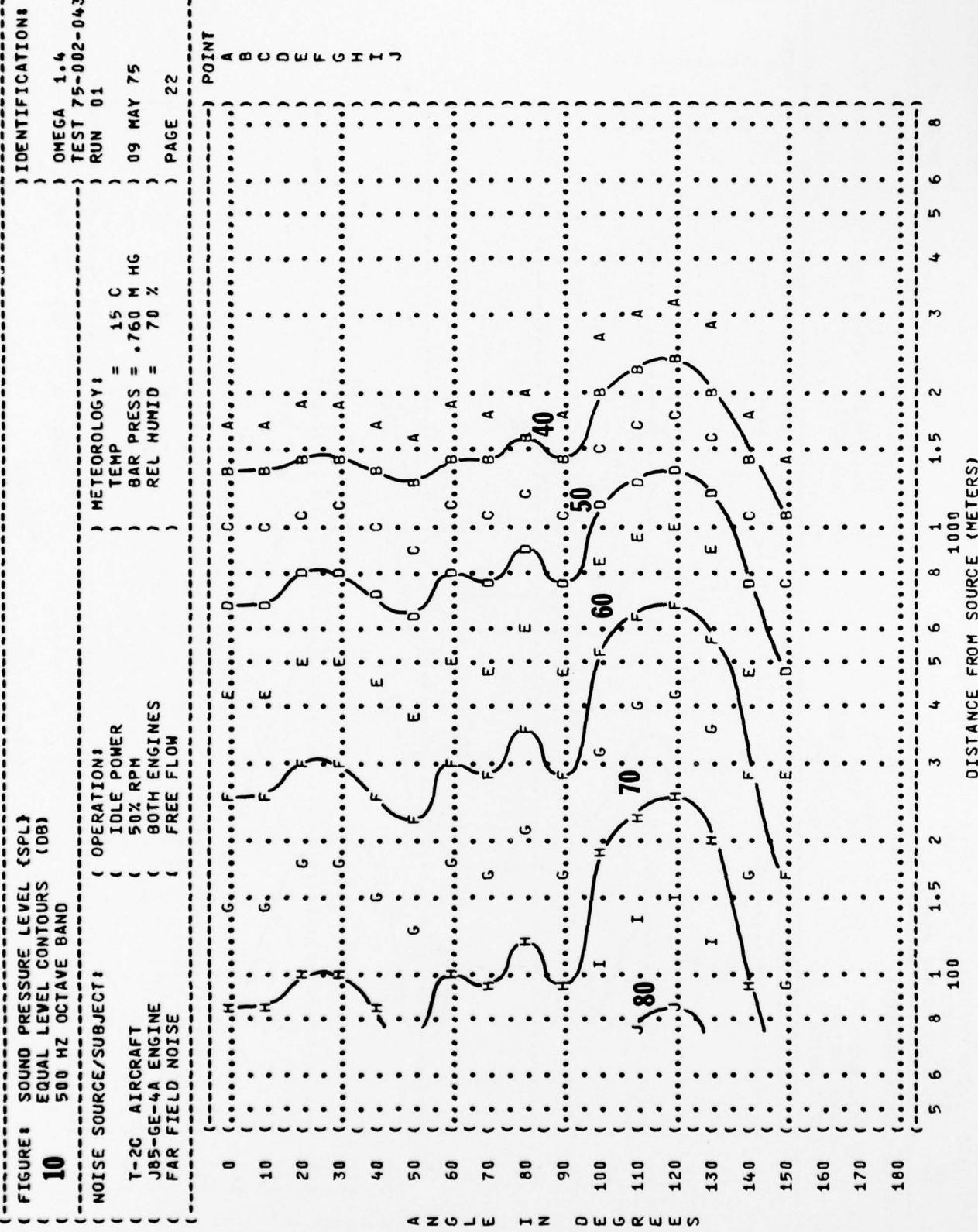


FIGURE: SOUND PRESSURE LEVEL (SPL)
10 EQUAL LEVEL CONTOURS
1000 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:

T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE

OPERATION:

IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-043
RUN 01

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

09 MAY 75
PAGE 23

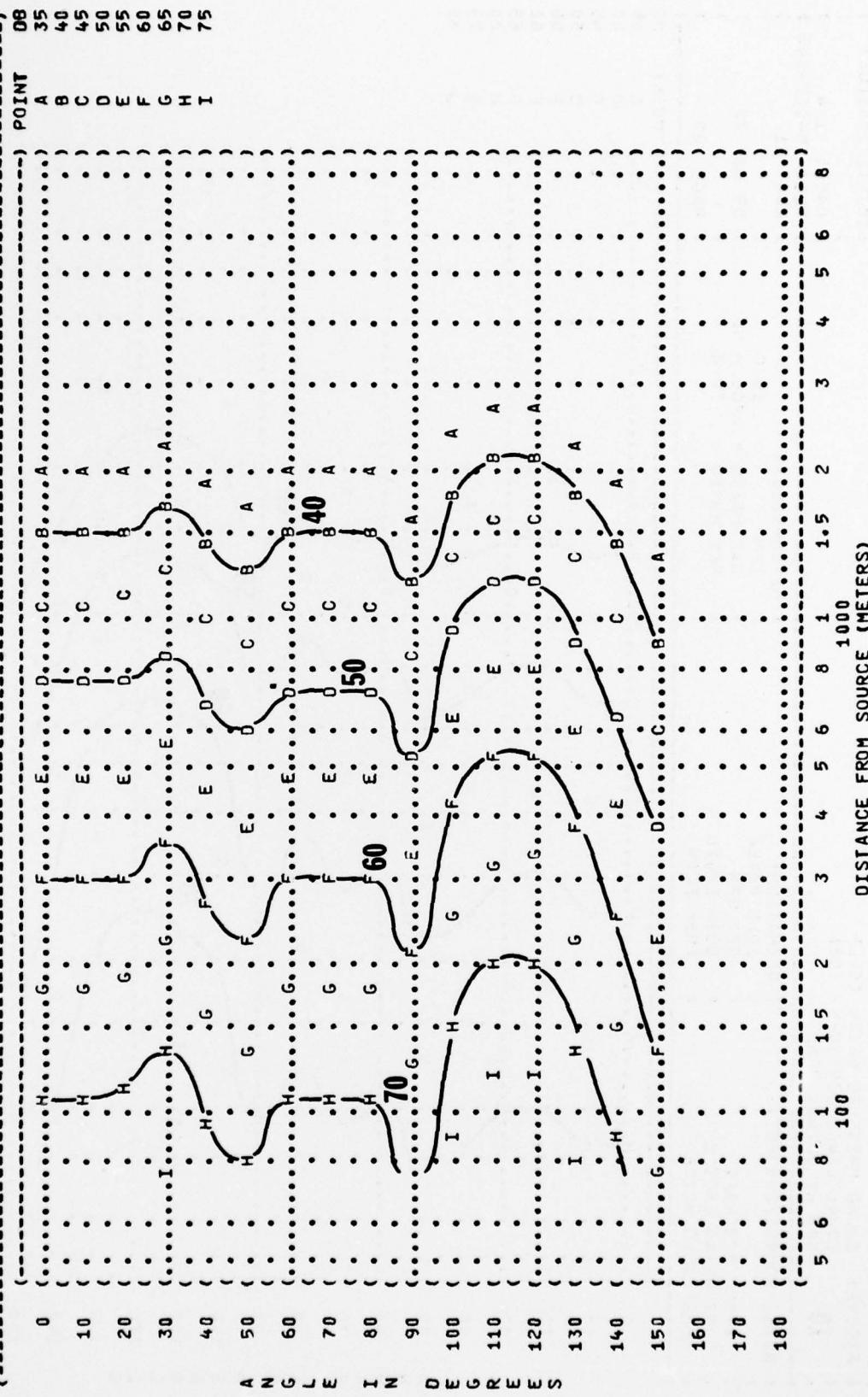


FIGURE 1 SOUND PRESSURE LEVEL (SPL)
10
 EQUAL LEVEL CONTOURS (DB)
 2000 Hz OCTAVE BAND
 NOISE SOURCE/SUBJECT:
 T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 IDLE POWER
 50% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 TEST 75-002-043
 RUN 01
 PAGE 24

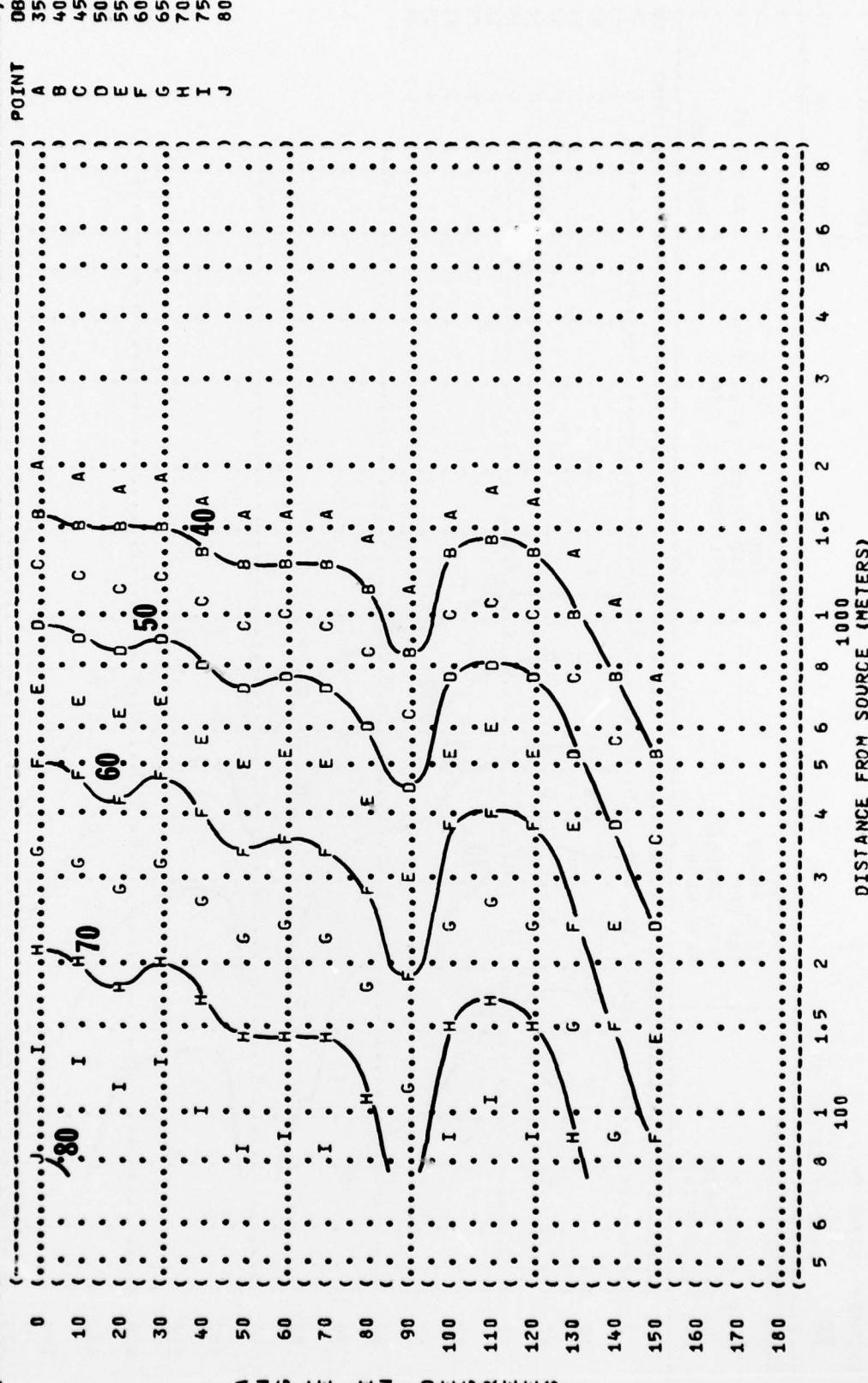


FIGURE: SOUND PRESSURE LEVEL (SPL)
 10 EQUAL LEVEL CONTOURS (DB)
 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
 T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

IDENTIFICATION:
 OMEGA 1^{•4}
 TEST 75-002-043
 RUN 01
 METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 PAGE 25

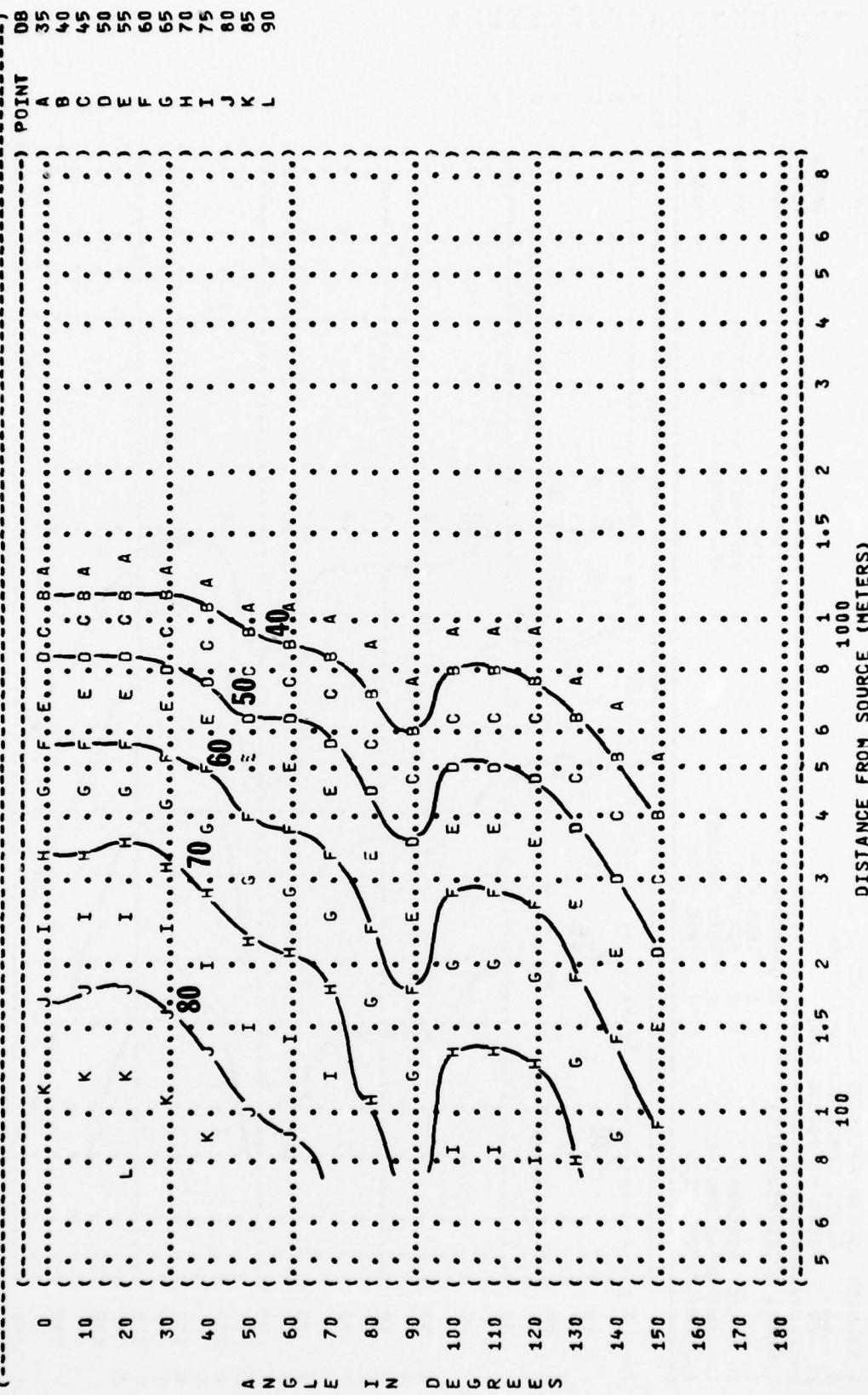


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
10
8000 Hz OCTAVE BAND

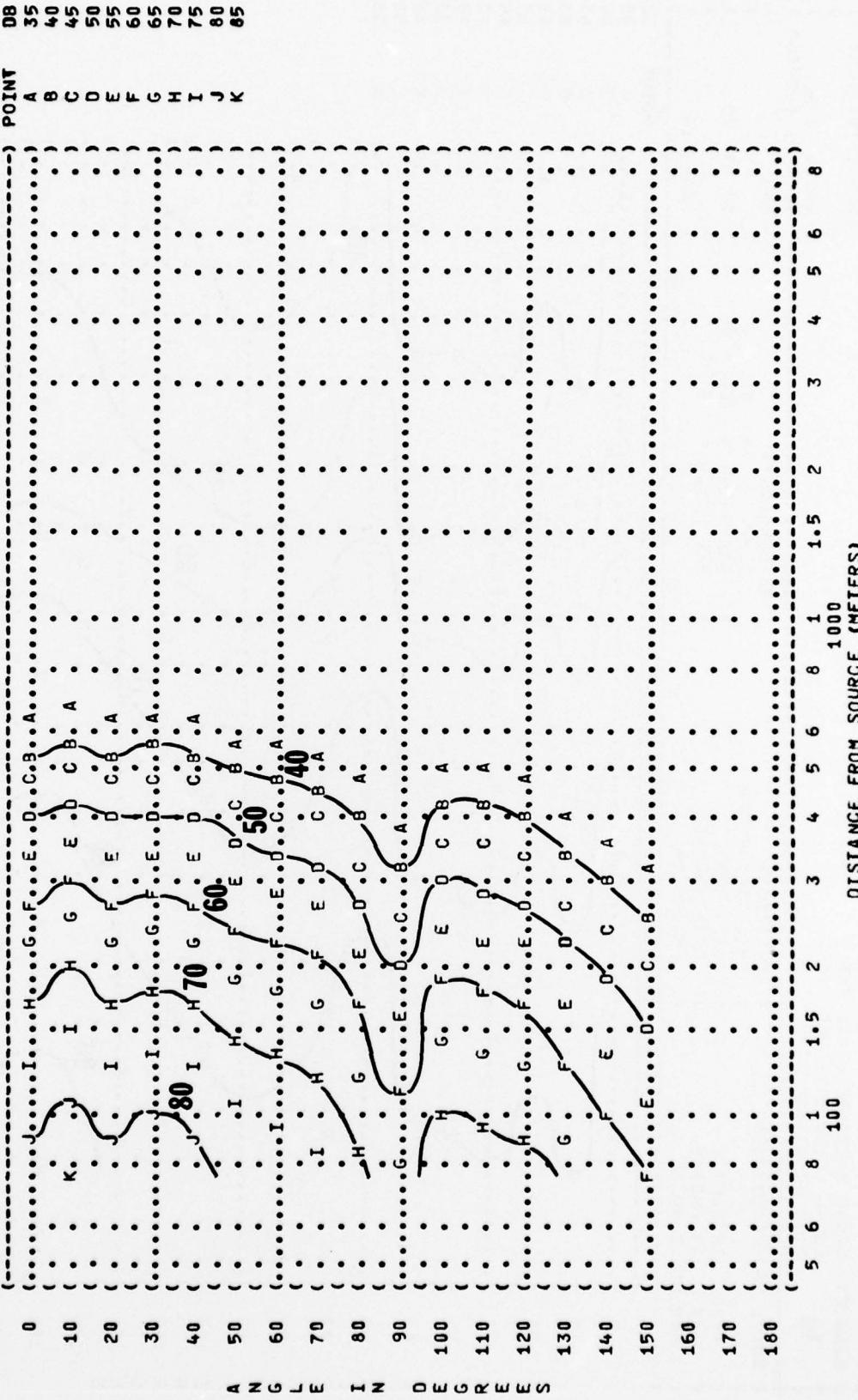
NOISE SOURCE/SUBJECT:
 T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 IDLE POWER
 50% RPM
 BOTH ENGINES
 FREE FLOW

IDENTIFICATION:
 OMEGA 1-4
 TEST 75-002-043
 RUN 01

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

PAGE 26



(FIGURE: SOUND PRESSURE LEVEL (SPL)
10
 EQUAL LEVEL CONTOURS
 31.5 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:

T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %

TEST 75-002-043
 RUN 02

09 MAY 75

PAGE 18

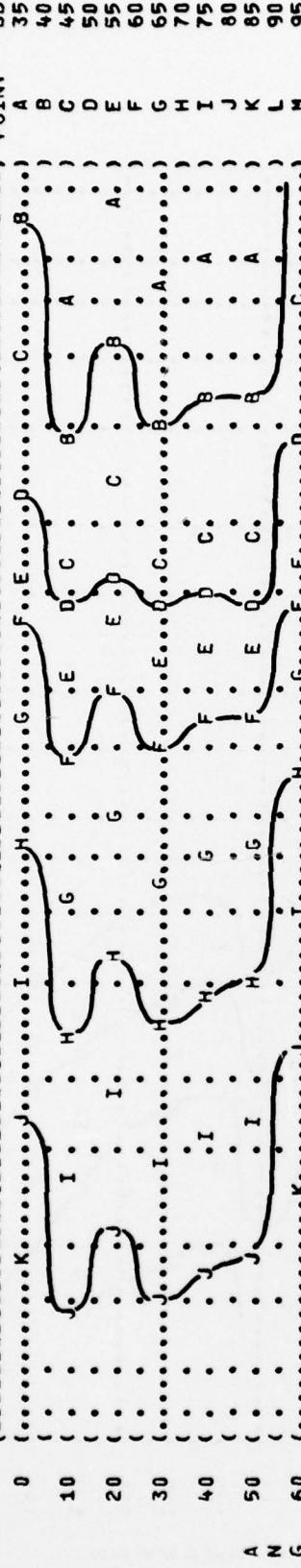


FIGURE 1 SOUND PRESSURE LEVEL (SPL)
10 EQUAL LEVEL CONTOURS (DB)
 63 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:

T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 Hg
 REL HUMID = 70 %

TEST 75-002-043
 RUN 02
 09 MAY 75
 PAGE 19

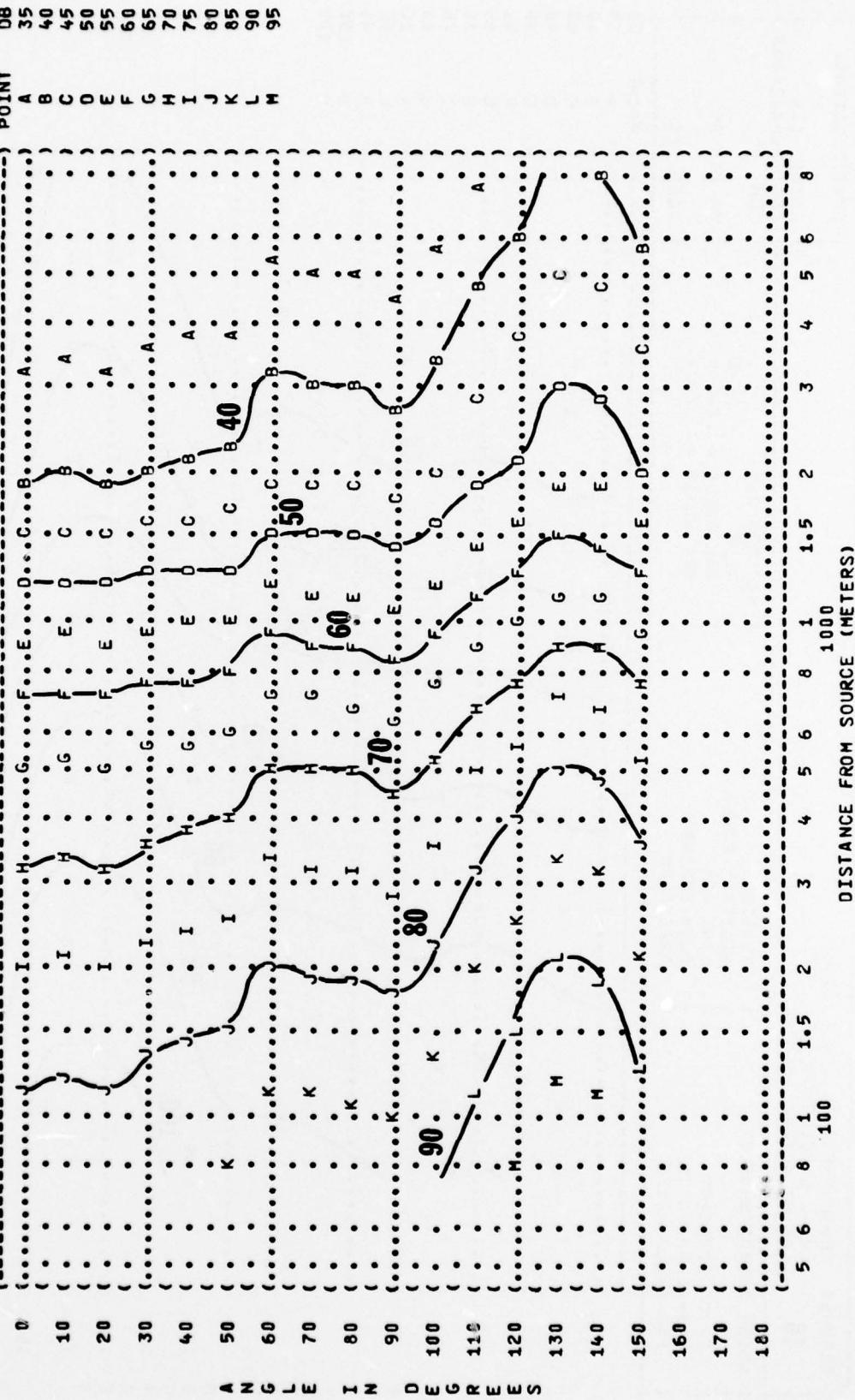


FIGURE: SOUND PRESSURE LEVEL (SPL)
10 EQUAL LEVEL CONTOURS (DB)
 125 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:
 T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 TEST 75-002-043
 RUN 02
 PAGE 20

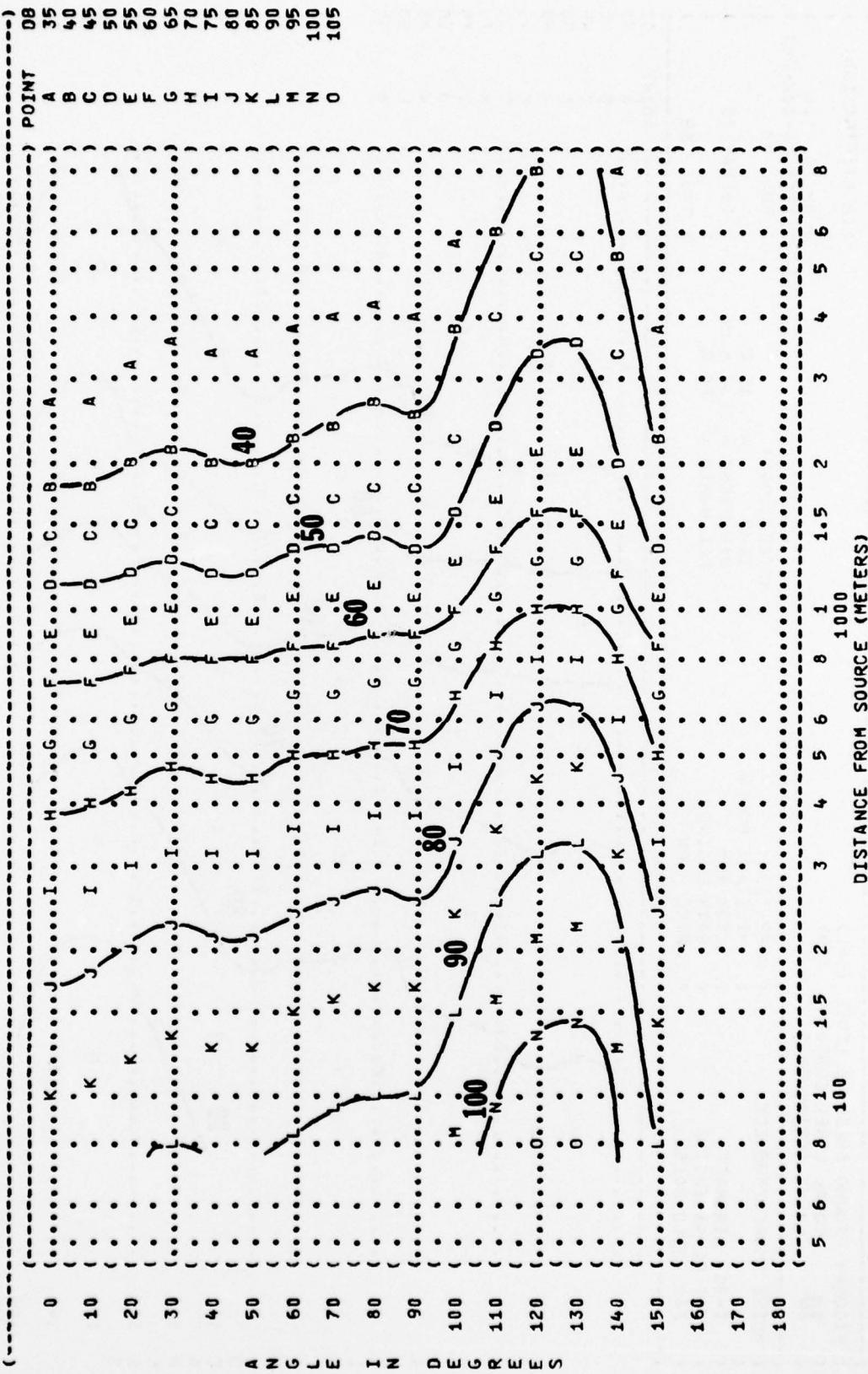


FIGURE: SOUND PRESSURE LEVEL (SPL)
10
 EQUAL LEVEL CONTOURS
 250 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT: T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

TEST 75-002-043

RUN 02

09 MAY 75

PAGE 21

METEOROLOGY:

TEMP = 15 C

BAR PRESS = 760 M HG

REL HUMID = 70 %

POINT 08

A 35

B 40

C 45

D 50

E 55

F 60

G 65

H 70

I 75

J 80

K 85

L 90

M 95

N 100

O 105

P 110

Q 100

R 110

S 120

T 130

U 140

V 150

W 160

X 170

Y 180

Z 190

AA 200

AB 210

AC 220

AD 230

AE 240

AF 250

AG 260

AH 270

AI 280

AJ 290

AK 300

AL 310

AM 320

AN 330

AO 340

AP 350

AQ 360

AR 370

AS 380

AT 390

AU 400

AV 410

AW 420

AX 430

AY 440

AZ 450

BA 460

BB 470

BC 480

BD 490

BE 500

BF 510

BG 520

BH 530

BI 540

BK 550

BL 560

BN 570

BO 580

BP 590

BR 600

BS 610

BT 620

BU 630

BV 640

BW 650

BY 660

BZ 670

CA 680

CB 690

CC 700

CD 710

CE 720

CF 730

CG 740

CH 750

CI 760

CK 770

CL 780

BN 790

BO 800

BP 810

BR 820

BS 830

BT 840

BU 850

BV 860

BW 870

BY 880

BZ 890

CA 900

CB 910

CC 920

CD 930

CE 940

CF 950

CG 960

CH 970

CI 980

CK 990

CL 1000

DISTANCE FROM SOURCE (METERS)

5 6 8 100 1.5 2 3 4 5 6 8 1 1.5 2 3 4 5 6 8

FIGURE 10
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS
500 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE

OPERATION:
100% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-043
RUN 02
PAGE 22

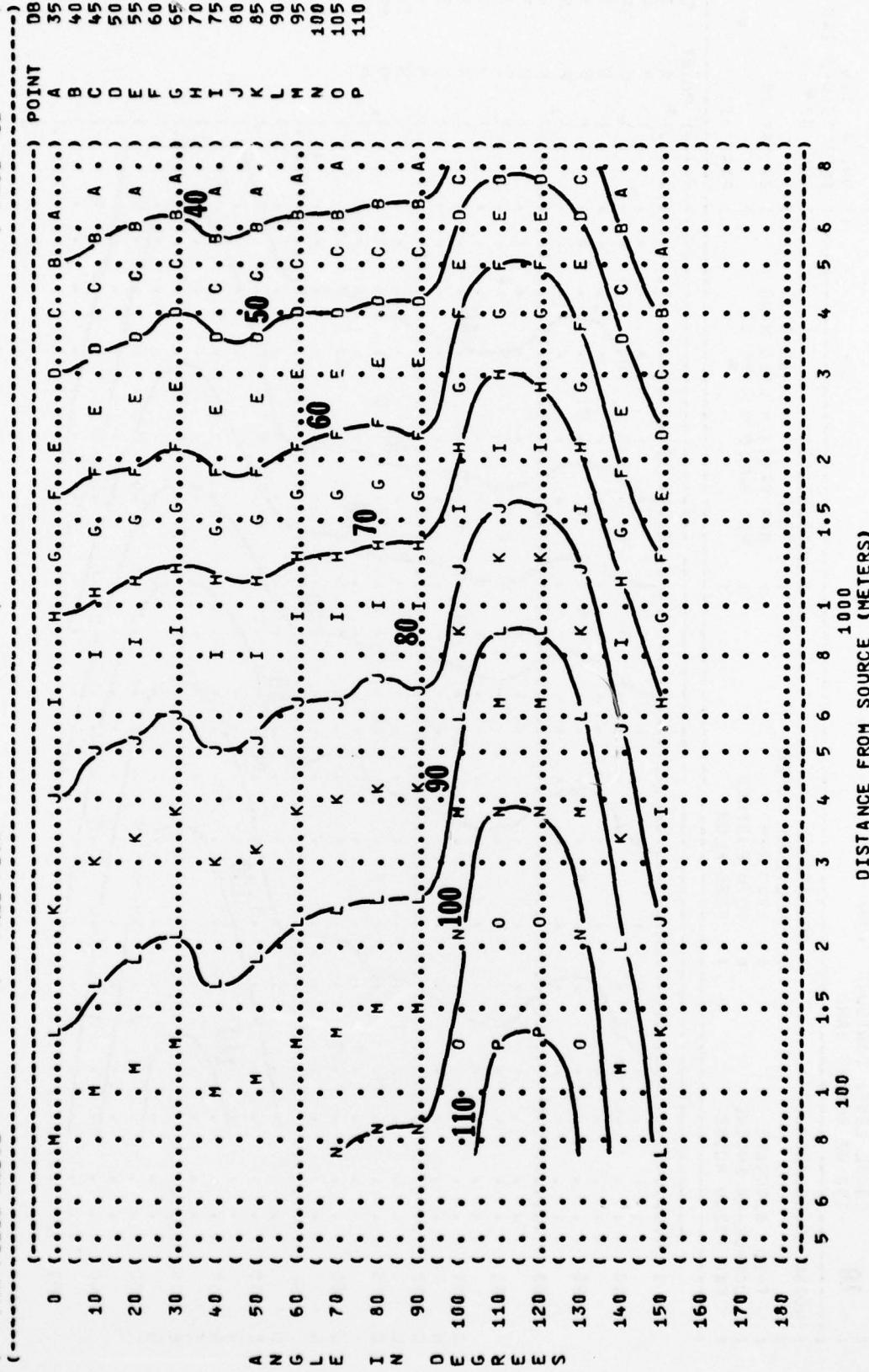


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
10 1000 Hz OCTAVE BAND

NOISE SOURCE/SUBJECT:

T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE
(FREE FLOW)

OPERATION:
(MILITARY POWER
100% RPM
(BOTH ENGINES
(FREE FLOW)

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 Hg
REL HUMID = 70 %
(

TEST 75-002-043
RUN 02
PAGE 23

IDENTIFICATION:
OMEGA 1.4

TEST 75-002-043
RUN 02
PAGE 23

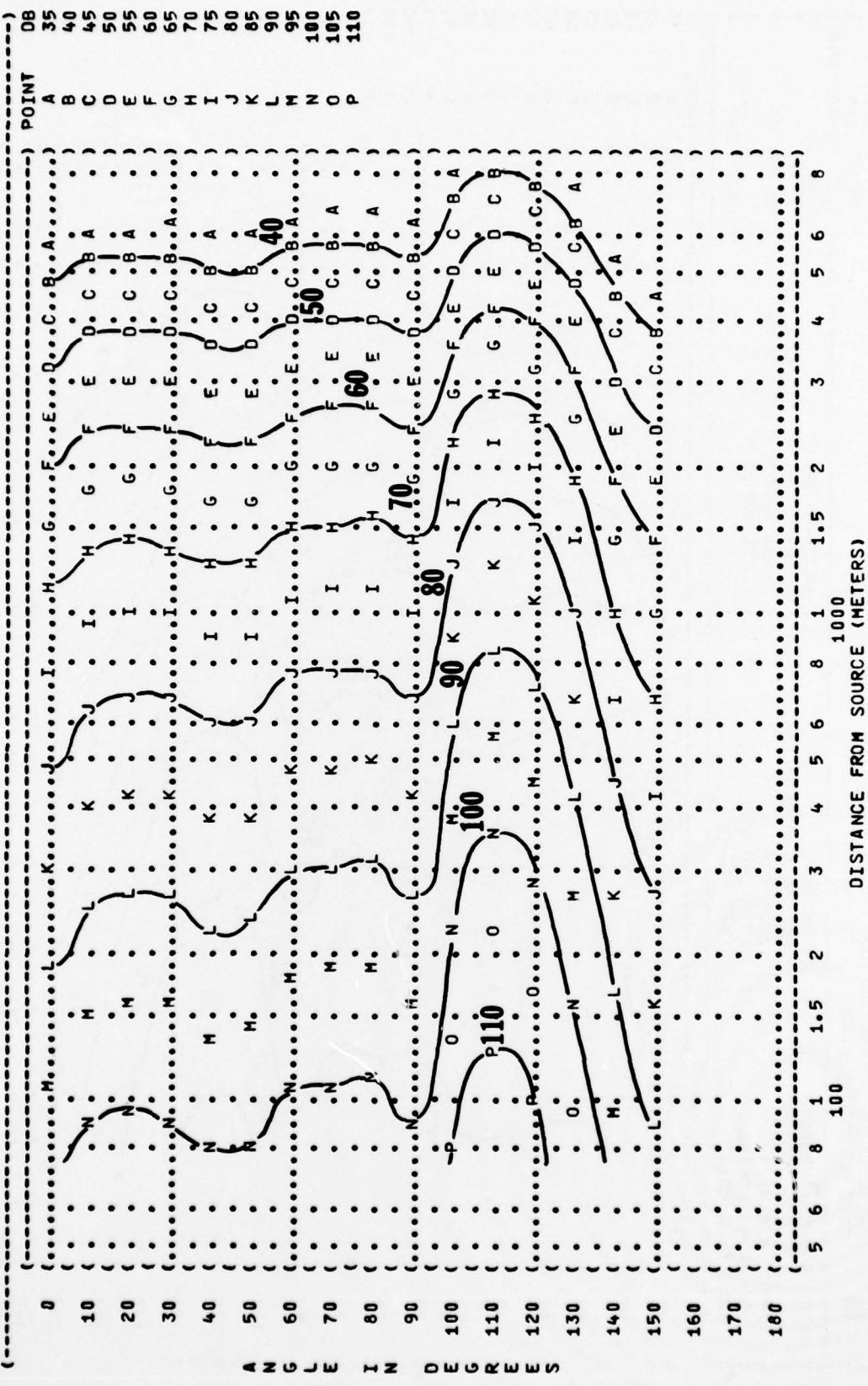


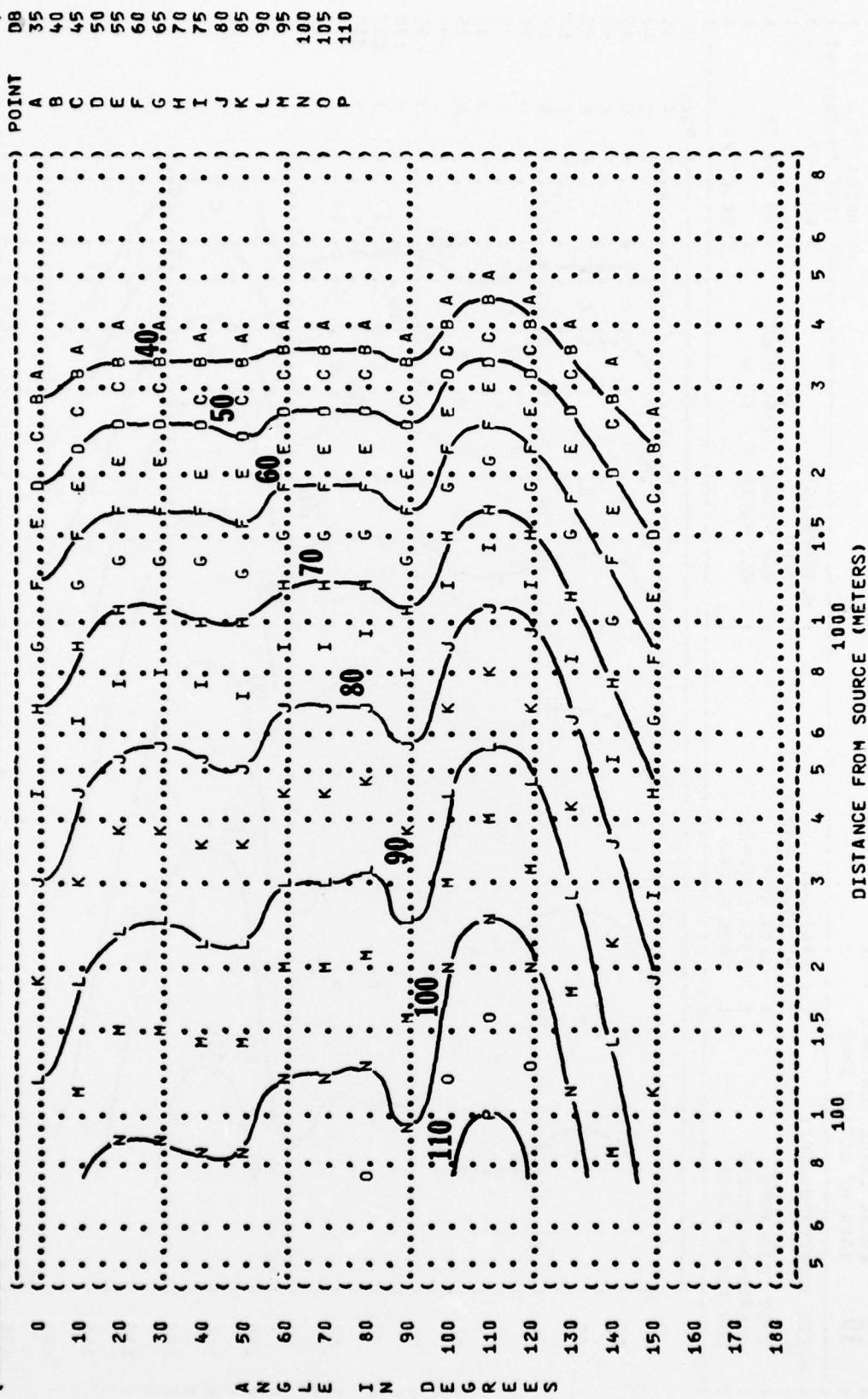
FIGURE: SOUND PRESSURE LEVEL (SPL)
10 EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-2C AIRCRAFT
J85-GE-4A ENGINE
FAR FIELD NOISE

OPERATIONS:
MILITARY POWER
1002 RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-043
RUN 02
PAGE 24



DISTANCE FROM SOURCE (METERS)

5 6 8 1 1.5 2 3 4 5 6 8 1 1.5 2 3 4 5 6 8

1000

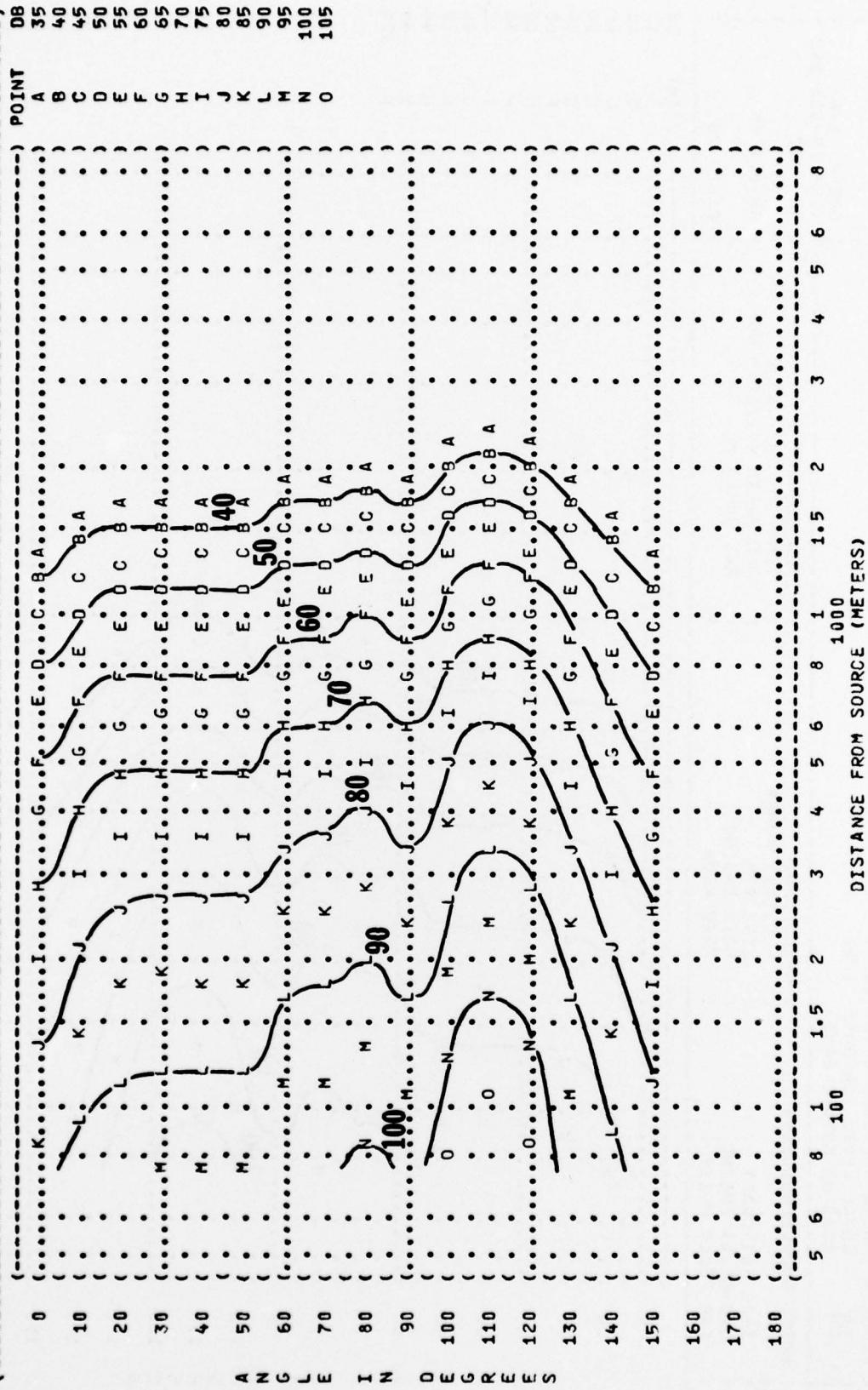
FIGURE: SOUND PRESSURE LEVEL (SPL)
10
 EQUAL LEVEL CONTOURS
 4,000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
 T-2C AIRCRAFT
 J85-GE-4A ENGINE
 FAR FIELD NOISE

OPERATION:
 MILITARY POWER
 100% RPM
 BOTH ENGINES
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 Hg
 REL HUMID = 70 %

TEST 75-002-043
 RUN 02
 09 MAY 75
 PAGE 25



DISTANCE FROM SOURCE (METERS)

